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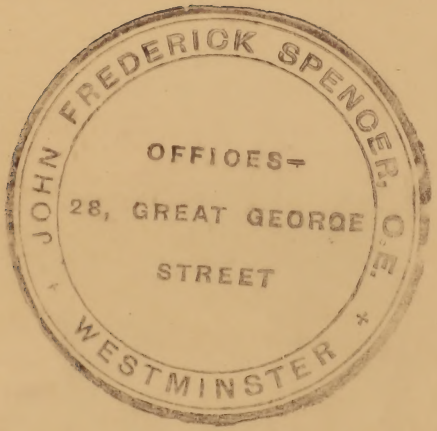

THE

SECRETS OF ANGLING

BY

A. S. MOFFAT

AUTHOR OF 'REMINISCENCES OF OTTER-HUNTING,' ETC.

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PREFACE.

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BORN on the banks of a lovely and a crystal stream, where the happy days of childhood passed serenely away in listening to its murmurs and gathering wild flowers on its banks, the waters, and all their varied tenants, have ever since had for me peculiar charms. In opening days of early spring, while the daisy scarce yet unfolds its modest petals to the sun, I used to listen with longing ears for the first "*peep*" of the merry sandpiper, as he skips along the gravelly margin of the stream, or skims its glassy pools; or watch intently for the simple ditty and eccentric vagaries of the water-crow, as it flits from stone to stone—now jerking out a few discordant notes, anon diving headlong into some pebbly shallow, like a lilliputian suicide, to gather its crustaceous food. Even the grave heron, perched on a dead

bough, sullen and motionless as a statue of despair—the very image of gaunt hunger waiting for a meal—had his own share of interest in the vernal landscape; while the wild notes of the curlew, and the plaintive cries of the *peewit*, sounding through the marshes, filled me with ineffable delight. They breathed a tale of mountain breezes, of green hills, and rippling waters; they spoke eloquently of azure skies and sunny evenings, when the skimming swallow and the speckled trout, sporting on the silvery stream, should contend for the tiny fly.

With a contemplative disposition, and a mind sensitive to all that is beautiful in nature, amid such scenes as these my early days were spent; and being permitted by indulgent parents to pursue the natural bent of my inclinations, so long as they did not interfere with my studies, it is not to be wondered at, that I speedily contracted almost amphibious habits; and from being at first only a babbling dreamer by lochs and streams, I became eventually a confirmed angler and an occasional otter-hunter.

Such, then, is a brief sketch of the early life of the humble individual who presumes to disclose the secrets of the delightful art which he

has been privileged to pursue with pleasure and success.

Upon the merits and delights of angling I need scarcely descant. Every angler knows that his feet are never put to the ground with such alacrity and right good-will, as when tramping to the river—rod in hand—full of hope and expectation, on a fine April morning. Serenely happy, he then proclaims a universal amnesty to every created being (except an opposition angler), and feeling internally at peace with himself, the world, and all mankind, every object that meets his view seems to wear the same sunny smile that gilds his own happy reflections. Would that all our dealings and pursuits in the ordinary avocations of daily life were productive of such blessed results!

I have often beguiled the dreary days of winter, when spotless snows formed nature's universal winding-sheet, by longing for the appearance of the yellow catkins of the sallow, the buds of the woodbine, the maiden notes of the thrush, borne by the breeze from the top of some tall pine, or the hoarse croak of the frog. For well I knew them to be sure harbingers of the time when the speckled trout,

recovered from his winter's torpor, would again breast the sparkling streams, and recal me from the closed room and sweltering hearth, to gather bodily health and vigour from the pure breath of the mountains.

But woe to you who dwell in pent-up cities! A chaos of bricks and smoke, and fumes of every unsavoury odour, constitute your dreary world. To you, ever surrounded by the cares of life, and perpetually bored to desperation by that demon, whose imps are £. s. d., in an everlasting and ceaseless contest; the glorious works of the Creator's hands—green hills and sunny fields—are scarcely known; to you, a mouthful of fresh air, and a glimpse of rural scenes, must be a treat indeed! Rise then, gird on your mantle, and follow me, at least in imagination, and I will initiate you into the mysteries of the "gentle art," giving you such a taste of rural entertainment as shall render the country for ever dear to your recollection; and the squalid haunts of vice, pestilence, and immorality, hideous and detestable.

March, 1865.

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CHAPTER I.

ANGLING IMPLEMENTS.

The Rod—Releasing fixed Joints—Fastenings for Joints—Landing a Rod instead of a Trout—Single *versus* Double-handed Rod—Varnish for Rods—Winches—Improved Multiplier—Double Multiplier—Reel-lines—Dressing for—Gut—Disgorger—Fly-retrievers—Bait-fisher's Wallet—Angler's Cabinet—Wading-boots and Macintosh Stockings—How to dry Wading-boots—Waterproof Dubbing—Landing-nets—Creel—Fish-bag—Angling Card.

I RECOLLECT once meeting with one of those coxcombs who think it adds to their importance in the eyes of country bumpkins, to differ from common sense and the ways of other people, trolling with minnow in *the Breamish* without a reel upon his rod, and with between 20 and 30 yards of line trailing behind him, which was every moment becoming entangled, now in a bush of rushes, next round some nibbling ewe's leg, so as to prevent him from doing much else than stand and watch the awkward efforts of his lacquey to disengage it.

Before entering, therefore, into the various subjects pertaining to the art and science of angling, which constitute the substance of this work, it will be our duty, in the first place, to devote a little attention to a few of

the principal implements necessary for the prosecution of the sport. And I need scarcely say that on the perfection of make and appropriateness of these to the kind of angling pursued, the success of the sportsman will in no small degree depend; the more especially if his operations are directed by a knowing and experienced head, and wielded by a skilful hand. As this work is intended more for the instruction of the young aspirant to piscatorial fame, than for the guidance of the more accomplished professors of the art, I should wish it to be borne in mind that whatever is done in the way of sporting should be done systematically and well. To use a proper implement for each operation, and to perform each operation with a proper implement, is the motto. By this means I consider sport of any kind rendered doubly attractive. True, it might be possible to capture an occasional fish, unacquainted with the usages of civilized life, in the waters of some outlandish stream, with a line of yarn or packthread tied to a broom-handle. But I do not call that sport, in any acceptation of the term, which is conducted in a slovenly manner, or with inappropriate tackle; neither do I choose to follow the example of those who are in the habit of dispensing with every nic-nac appendage which is not *absolutely* necessary, and are consequently compelled to resort to the most clumsy and awkward methods of accomplishing what might otherwise be done with neatness and ease.

On the other hand, I would not recommend any one to encumber himself with anything really useless or

superfluous, which in many cases is more calculated to mar sport than conduce to it. For example, I have met an angler, with quite a superabundance of appliances, accompanied by an attendant with landing-net in hand, watching with eager eye and ready hand to bank every troutikin his master happened to hook, while the small scale of the river rendered such assistance unnecessary and injurious.

The Rod.

Of the several articles which constitute the angler's equipment, the rod is certainly the most important and indispensable, and accordingly first demands our attention. I need scarcely say that there is a much greater difference in the make and quality of fishing-rods than most people imagine, and I defy the most accomplished angler in Britain to cast a line properly with a bad or slovenly made rod.

This is true both as regards the quality of the material and the workmanship. For however well and truly a rod may be made, if the wood is not of the very best, thoroughly seasoned, and entirely free from knots and cross-baits (that is, when the fibres of the wood cross each other transversely or obliquely, instead of running parallel for the whole length of the piece), it will not only warp and cringe, but readily snap whenever exposed to any extra strain, and be an unceasing cause of vexation to its owner. But rods made by respectable makers are in general excellent, both as regards material and workmanship, and are usually free

they fit accurately; but where the fish run large, and it is necessary to play them, or in salmon-fishing, it is quite another matter. And as an illustration of what disagreeable consequences may ensue through negligence in attending to this simple matter, I will relate the following anecdote:—

A friend of mine who was habitually too indolent to secure the joints of his rod, accompanied me on one occasion to "Till's muddy deeps." He had whipped away over a considerable cast of water with moderate success, landing here and there a fish of fair proportions, until fortune, the fickle jade, uncourteously resolved to play her pranks at his expense, and the following untoward adventure was destined to be the unpleasant finale to an otherwise agreeable day. While industriously plying my rod behind a sharp bend in the river, not far from my friend (who was usually of a taciturn temperament), my ears were suddenly assailed with such a volley of excited exclamations strung in rapid succession upon each other, as induced me instantly to drop my rod and run over to inquire the cause. On arriving near I found him busily employed in hauling ashore, not a goodly fish, but the top half of his rod, which he was endeavouring to recover from the rapids of the next stream, some 30 or 40 yards below; giving vent to exclamations each moment, both loud and deep, against his own negligence, which would most assuredly have driven John Wesley into hysterics had he heard them. The fact of the matter is, he had hooked and played for some time, and with a reasonable prospect of

eventually killing, a fine game trout of 1½ or 2 lbs. weight, which is sometimes to be met with in that river; when lo and behold! just when a few turns more would have brought him a gasping and unresisting captive to the shore, the upper portion of his rod, which had become loosened by the extra strain, suddenly parted from its socket, and left the butt sticking up in his hands like a dismembered flagstaff, while the top went gaily careering down the line, far into the rapids beyond. Mr. Fish, not at all relishing this fresh act of aggression on the part of his antagonist, however unintentional it might be, at once dashed off in high dudgeon straight down stream, until, the line being all run out, a most determined flounder and a highly indignant flourish of the tail at once announced the unwelcome intelligence that the trout was off, to my poor friend's unutterable mortification. But this salutary lesson, though dearly purchased, has not been entirely lost upon him; for, I believe, he makes it a constant practice to tie the joints of his rod together ever since with the strongest whipcord he can lay his hands upon.

But to return to the subject of fastenings.—Several methods are adopted, but the best and least troublesome, to my fancy, is the bayonet-joint, of which Fig. 1 is the socket portion; in which the slit *a*, on the top of the female ferrule, into which a knob soldered upon the hoop of the male ferrule inserts itself, is shown, and by a twist so far round becomes securely locked—precisely in the same manner as a bayonet is fixed upon a

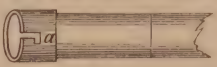

Fig. 1.

soldier's musket. In this kind of fastening it is necessary that the external ferrule, in which the slit is, should be of more than ordinary thickness and strength about its upper margin, and for a little below where the opening extends, in order to prevent its giving way by the leverage of the rod. An extra rim of brass soldered round the ferrule will suffice.

Another method of strengthening this form of joint is to have an extra narrow ferrule, either fixed or loose, upon the upper piece which is inserted in the socket, so as to tightly embrace the upper margin of the under ferrule in which the slit is, after the joint is fixed in its place, and thus render all strong and secure. Or a thickish brass ring may be soldered round its upper margin, and a notch filed in it opposite the slit, sufficiently deep to admit the knob on the male ferrule.

A third plan is to fix a screw in the wood, inside the under ferrule, and attach a brass cap with a female screw to the under part of the next piece. The joints are then screwed tightly together. This forms a very convenient fastening, but it weakens the rod very much near the joints, and gives rise to frequent fractures.

The most common, and perhaps not the worst method, is that usually adopted of whipping or soldering two knobs or wire loops to each joint, for the purpose of tying them together with fine cord or stout packthread after they are in their places.

A rod made of the materials, and in the manner described, will constitute a good serviceable single-handed fly-rod; especially if it is provided with an extra

top a little stiffer, to be used on emergency for worm or minnow-fishing in the absence of those proper for the occasion.

For such as can afford it, the built rod is undoubtedly the best and most lasting—that is, all the pieces above the butt are composed of three longitudinal slips of wood accurately planed and glued together, and lashed at intervals in a spiral direction with bands of strong silk. Such a rod generally costs from 30s. to £2.

Rods are now to be had at the tackle-makers of every variety in size and make, suitable for every variety of fish and fishing, from the bamboo cane general "Jack-of-all-trades," as strong and stiff as a flagstaff, to the limber and elegant little toy we occasionally see in the fair hands of some pretty little minx of nineteen, scarce stouter in the top-piece than a stiff bristle ; and from the simple spliced one of two pieces, which, by the by, is undoubtedly the least apt to break, the lightest, and the truest in action of any, were it not its awkwardness to stow away and the trouble of lashing it together—through all the different grades, to those of 3, 4, 5, and even 6 or 8 joints, to carry in the pocket ; so that the fancy and convenience of the purchaser can be suited in any shape. I admire the action of a three-jointed rod more than a four (and it is certain that the fewer the number of unyielding ferrules there are, the stronger and truer it will be), but the superior portability of the latter induces me to give it the preference.

The Double-Handed Rod.

The double-handed rod must be made precisely of the same materials and in the same manner as the single one, only its length must be 15 or 16 feet, in place of 13, while its strength must be increased in proportion to its length.

For minnow-spinning and worm-fishing the rod should not be less than 16 feet in length, and slightly stiffer and stouter than the double-handed fly-rod; but, in fact, that rod, with an extra strong top-piece, will form a very efficient implement for those varieties of fishing.

I may here mention that it is my invariable practice to send in advance, or take with me, in all angling excursions at a distance from home—besides my usual fly-rod for trout, which I never use for any other purpose—a light salmon-rod of 16 feet, in four joints for convenience of carriage, and fitted up with three top-pieces, two of which pack into the root, which is bored throughout for the purpose. The most pliant of these tops I use for fly-fishing for salmon or eriox, or worm-fishing for trout; the second, a little stiffer and stouter, I employ for minnow or parr-tail spinning for salmon or trout, or in worm-fishing for the former; and the third, which is short and very strong, I use in pike-trolling. I find this an exceedingly useful rod indeed for general purposes, and would advise every sportsman who has any variety of fishing to furnish himself with one. It forms a most

masterly minnow or worm rod, giving the angler an infinitely greater command over both the water and the bait than any mere trouting rod can do, while it is sufficiently powerful, if made of good materials, to manage the heaviest salmon, if played with proper tact, and will cast a line with much greater delicacy and precision, though perhaps not quite so far, as one of those huge titanic implements of 20 or 22 feet in length, which no rational man under seven feet in stature would ever attempt to handle.

I must confess that, in fly-fishing for trout, I consider the use of the two-handed rod rather more of a toil than a pleasure; and those who use it always seem to me to be more like labourers earning their fish "by the sweat of their brow" than jolly sportsmen in pursuit of a day's pleasure. But this feeling may be a peculiarity of my own. What with the cumbrous weight of the rod, the extra exertion required in casting, and the clumsy coach-whipping style in which it lays the line upon the water, I consider the double-hand system to be a method of fly-fishing which ought to be exploded by all sportsmen who have any pretensions to elegance or taste in the pursuit of their favourite pastime. It is an unquestionable fact that in order to fish with success in the pellucid streams of the north, where a lady's sewing needle may be distinctly seen at the bottom of a pool six feet deep, the whole of the line and tackle used must not only be of the very finest, but with its attached flies so lightly and dexterously laid, rather than cast, upon the surface of the water, as to resemble the gossamer

flight of the natural insect. And this can only be at best but partially and clumsily accomplished by casting the line in such a manner as that the end fly may only on all occasions first reach the water, then the droppers in succession ; while as little of the remainder of the gut line as possible must be allowed to be immersed. And unless those maxims are strictly obeyed, I tremble both for the sportsman's reputation and patience, even should he be a member of "the Society of Friends." Now mark the proceedings of a man with his great lumbering double-handed rod of 16 or 17 feet in length, pitching with might and main a line thick and strong enough to haul any shark ashore. You will observe at each laborious effort that the first portion of the line which reaches the water is somewhere about one-half of its length from the tip of the rod to the tail fly, and that it makes a splash not a vast deal less than the ricochet of a 68 lb. shot upon the water, proclaiming its advent to the finny world below by a series of wide-spreading surges ; while the flies perform a bounding somersault in order to reach their destination. Thus he goes on, repeating this leap-frog system at every cast, no doubt to the mortal terror of the fish. This method may occasionally succeed in deep muddy rivers in some parts of the country, but in any ordinary fly-fishing stream it will be found as unsuccessful as it is clumsy.

It is very evident that a light well-made single-handed rod must have a great advantage over the unwieldy double one, so far as nicety and precision of casting is concerned ; while the only advantage to be

derived from the latter is its greater command of the water in a large river, where delicate fishing is not of such vital importance. It is true I have seen the double-handed rod used on a small river, and pretty successfully too; but there was certainly a considerable *freshet* at the time, and the trout were greedily on the feed, taking almost anything that was offered, and not inclined to be particularly nervous at a little disturbance of the water. It is only on those occasions, when the fish are ravenously on the feed, and the waters full and turbid, that the clumsy operator with his coarse tackle and two-handed rod and those who will persist in using flies that most glaringly outrage nature and common sense, may succeed in doing a little business with a moderate degree of success. But, nevertheless, I am thoroughly convinced that the most adroit method of casting, with the most delicate tackle, and with flies the closest imitations of nature, is necessary to obtain a good basket in ordinary states of clear streams.

Before finally taking leave of this important implement, I would beg to observe that a great deal of the smooth and efficient action of a rod depends upon the proper placing of the rings and their whippings upon it. It will not answer to dispose them at equal distances along its length, as many would suppose; neither must they be placed too thickly, nor too far apart, in order to ensure an equal and combined action of all its different parts, from the butt to the tip, without which no rod is worth having. For a rod 13 feet in length and of four joints, the following scale will be found to com-

bine all the advantages above stated; while the whippings will be so placed as to strengthen the rod in those parts farthest from the ferrules, where it might otherwise be too pliant for other portions of its length. By this means we are also enabled to divide any amount of strain equally over its whole length, so that no particular part will have to withstand more than its due share of strain. And those are two very essential points gained—viz., an even homogeneous action of the rod throughout its length, and a perfect division of strain; securing a comparative immunity from fracture, in working a heavy fish, or any sudden and violent action.

RING SCALE.

Rings.	Distance.	
Reel	8½ inches	from butt.
No. 1	17 „	from reel.
„ 2	12½ „	from the last.
„ 3	17½ „	„
„ 4	10 „	„
„ 5	11½ „	„
„ 6	15 „	„
„ 7	8½ „	„
„ 8	9 „	„
„ 9	9 „	„
„ 10	7½ „	„
„ 11	10 „	„
„ 12	4¾ „	„
„ 13	5½ „	„
„ 14	5½ „	„
End loop	3½ „	„

And permit me here to suggest, that after a good and efficient rod is obtained, it be taken due care of, and never left for days, or even weeks together, as I have witnessed, to rear its "tall form" against the outside wall or on the garden hedge, exposed to all weathers, until it becomes warped, shapeless, and

useless. No article is of more delicate structure, or more easily injured by rough and improper treatment, than a fishing-rod. The careful angler will, therefore, always take his rod to pieces, and replace it in its bag the moment he ceases operations. By such treatment, it will retain its spring and elasticity unimpaired for a great number of years; in fact, I have continued to use the same rod for twenty-five years, and that not a little, and it is as perfectly straight, free from warp, and as elastic and efficient, as the day it left the shop; and what is more, has only been once accidentally fractured.

At the end of each season it is advisable to re-varnish the rod and lay it carefully aside. The following varnish will be found excellent, possessing a strong body, and becoming quickly dry.

FISHING-ROD VARNISH.

Gum sanderach	-	4 oz.
Pale seed lac -	-	2 oz.
Gum elemi -	-	1 oz.
Alcohol -	-	1 quart.

Agitate the gums occasionally till dissolved, and then add—

Venice turpentine	-	2 oz.

If a brown colour be desired, add four drams of brown, or two drams of black sealing-wax.

Half a dozen coats of shell lac, dissolved in rectified spirit of wine, may also answer the purpose very well,

and the addition of dragon's blood will give it a reddish brown colour. Boiled linseed oil may also be used, or a solution of caoutchouc (india rubber) in ether. But they do not look so well as the varnish, although they will equally well protect the wood against damp and insects.

The Winch or Reel.

In regard to the reel, there are several kinds in use according to the fancies of different sportsmen—viz., the common pillar-reel, the click-reel, the stop-reel, and the multiplying winch—all differing more or less in their interior anatomy and physiology; but none of them, as at present made, are favourites of mine, excepting the first.

The pillar-reel. There can be no question that for all ordinary purposes, either for trout or salmon fishing, a modification of the simple pillar-reel is decidedly the best. And if it is made narrow in width, broad in diameter, thick in the axle, and with a friction-plate interposed between the drum of the reel and the end plate, it will be the safest and most efficient for general use.

The click-reel is that kind which emits a rattling noise, either when the line is paid out or wound in. This arises from the action of a steel point striking against a toothed wheel attached to the drum of the reel, which works between two brass plates at one end. The steel point is fixed to the outside plate, and is acted upon on either side by a circular steel spring, which

causes it to catch in the teeth of the wheel whichever way it turns. In Fig. 2, *a* denotes the notched wheel upon the end of the drum; *c*, the steel ratchet which catches into the teeth of the wheel *a*; *b*, a steel spring which guides the ratchet; and *d*, the external plate of the reel, on which the ratchet and spring are fixed. The use of this mechanism is for the purpose of opposing a certain degree of resistance to the too easy run of the line off the reel, and is tolerably efficient in this respect; but it has one or two grave

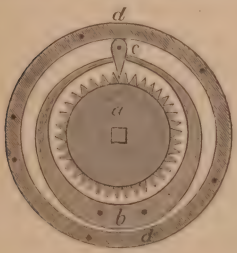

Fig. 2. Click-Reel.

Fig. 3. Friction Plate.

faults which must not be overlooked. It is apt to stop working altogether, when either the teeth of the wheel, or the point of the ratchet, or the head of the nail which fixes it to the plate, become worn, which they certainly will in the course of time; although, when new and well finished, this reel is certainly a very neat piece of apparatus.

A much better method of applying friction is to interpose a thin circular plate of brass, slightly convex in the middle, and slit so far up at intervals around the

circumference as to act as a friction-spring, between the end flanges of the drum and the external plates of the reel, as shown in Fig. 3, where *a* is the external plate, and *b* the convex friction-plate placed between it and the end of the drum or barrel of the reel. By this means a constant and uniform pressure will be maintained upon the motions of the barrel, so as to require a slight force to be exerted before the line can be drawn out. And the beauty of this arrangement is, that the mechanism by which it is effected is so extremely simple, that it is scarcely possible for it to become deranged under any circumstances. Some arrangement of the kind is almost indispensable to every form of reel, as it not only regulates the flow of line according to the demands of a running fish, and much sooner exhausts him; but likewise restrains the line from slacking out while casting, which it invariably does, much to the annoyance of the angler, when no friction apparatus is employed.

The Multiplier would be a very useful contrivance to reel up the line with rapidity (which on many occasions is of paramount importance, when a fish runs in towards the angler, and he is unable to use his legs as well as his hands in retreating backwards, from the nature of the banks), were it not so very liable to clog and cease working altogether, when a strain is put upon it, such as may be produced by the resistance of a headstrong heavy fish. But I will here suggest, that if it were made very narrow, and proportionally wide in diameter, so as to allow the pinion on the end of the barrel to be much larger than it is usually made at present;

if the latter were not less than one-third the size of the winch-wheel, the reel would be comparatively free from this defect; and what we should lose in speed we should gain in safety.

As the chief cause of this reel clogging, when a strain

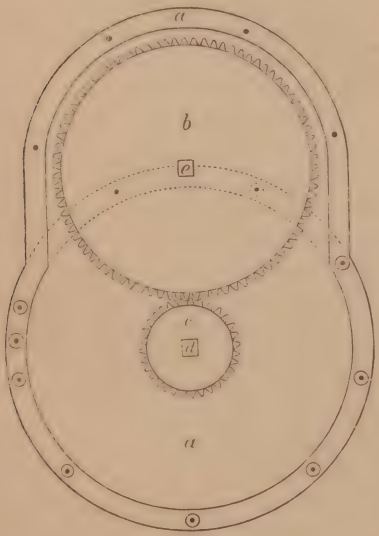

Fig. 4.

is applied to it, is the smallness in diameter of the pinion upon the end of the drum, I suggest an improved form of that implement in Fig. 4, which will allow of the pinion being sufficiently large in diameter to work freely with any ordinary amount of strain; while the

speed of the barrel will be nearly four revolutions for one of the winch. It will be seen by a reference to the annexed figure, that the only difference between this and the ordinary multiplier is, that the stout brass plates enclosing the mechanism at the right hand end of the reel are extended, so as to admit of both a larger pinion and winch-wheel, by which the working of the whole is rendered both smoother and less liable to clog. *a a*, Brass plate; *b*, winch-wheel; *c*, pinion upon end of barrel. The winch-handle is fixed on the axle *e*.

A very rapidly acting Double Multiplier may be constructed, by allowing Fig. 4 to represent the wheel and pinion, in their proper position, in their case on the left end of the reel; while their position in the right end, to which the winch-handle is attached, must be reversed—viz., the winch-wheel, *b*, must be fixed on an independent axle (which may work upon a pivot, inserted in a socket drilled in the upper end of the barrel axle), in the place occupied by the pinion *c*, Fig. 4; while the pinion *c* must be placed on the end of the axle *e*, which axle must extend across the reel, and sustain the driving-wheel *b*, at the other end; the winch-handle being in this case fixed upon the independent axle *d*, in the centre of the reel. Thus both ends of the reel will be alike, each containing a wheel and pinion, with an axle between; and the parts at each end projecting above the circular portion of the reel may be strengthened by connecting bars between, the same as those around its circumference. By the multiplying effects of a wheel and pinion at each end of the reel, we will gain sixteen

revolutions of the barrel for one turn of the handle, supposing each driving-wheel to be four times the diameter of its corresponding pinion. Although this arrangement may probably produce too much friction in giving out the line, to be used with safety with delicate trouting-tackle, especially when applied to a small trouting-reel, in salmon or pike fishing, when made upon a large scale, so that the friction of the pinions will be materially diminished, the extreme rapidity of its action will in many cases be of vast importance to the angler, while the steady resistance it will offer to the run of the line, by means of a little extra friction, will rather be an advantage than otherwise when strong tackle is used ; and if the pinions are kept large enough, no fear of clogging need be apprehended. The chief objection to the two latter forms of reel, will be their great weight if made of brass. But if aluminium or lignum vitæ be the material used for the external framework, that objection will be in a great degree obviated.

The Stop-Reel—I would rather call it the *stop-sport reel*—is provided with a small lever working horizontally, one end of which projects beyond the circumference of the plate at one end, and is held in a notch in the plate by a spring, when the reel is locked; while the other catches into the teeth of a small wheel upon the end of the barrel, when the action of the reel is completely suspended. Releasing the lever from the notch, and pushing it to the opposite side, of course allows it again to act.

I regard this form of reel as scarcely worth notice, were

it not for the purpose of warning others from risking both their sport and reputation by the use of such a bauble. I can easily imagine the sorry plight of some unlucky brother furnished with one of those mischievously-ingenious pieces of mechanism, who has unwittingly placed the stop in the lock, and rendered his reel motionless as a mooring-post; when suddenly, a walloping yellow-fin, or a 5 lb. grilse, takes it into its head to appropriate the fly, but not by any means relishing the pungency of its flavour (as some wiseacre has remarked, fish in general preferring flies without stings), it darts full down stream, followed, no doubt, by our disconcerted friend as fast as legs can carry him, while, perhaps, he has neither time nor presence of mind to release the unfortunate stop; until splash dash goes the fish, crash goes the rod, flash goes the line, and *pop goes the weasel*, all owing to the ill-fated stop. This is no fiction. The same has happened to the author, and doubtless to many who have used this kind of reel. Many and hearty have been the wishes, without doubt, that the daily viands of the inventor of this provoking piece of mechanism were duly seasoned with a mixture of Cayenne pepper, wasp-stings, and fish-hooks.

Lines.

The reel-line will now engage our attention. These are usually made either of hair, cotton, or silk, alone or mixed. I regard a line made of hair and silk spun together as decidedly the lightest, strongest, and most

durable, although waterproof silk makes also a very good one. Those made entirely of hair, require to be too thick and clumsy in dimensions in order to be of the requisite strength. Every reel-line ought to be so gradually tapered for twelve feet from the end, that its termination may not be thicker or heavier than strong salmon-gut, a link of which may be securely whipped to it, having another finer length knotted to it, with a loop at the end to which the fly-line is to be attached ; thus dispensing altogether with those abominations called casting-lines, usually interposed between the reel-line and the gut-cast. While as there is neither knot nor loop interposed between the top of the fly-line and the reel, the whole may be wound in, even to the flies themselves if required, without obstruction—an advantage of no small importance, when the angler is obliged to land a large fish without the assistance of an attendant ; as he can thus reel his line so close up as to keep it strict while he stoops to lay hold of his victim, and avoid the danger of the hook being shaken from its hold if the fish commences to flounder, which will be very apt to occur if the line is for a moment slackened. I have seen several fine fish lost in this manner after being brought to *terra firma*, while the captor "selling his chickens before they were hatched," was complacently revolving in his mind what a delicious fry he would have, and little thinking how soon and forcibly he would illustrate the old adage, that "there is many a slip between the cup and the lip." A momentary inadvertence permits the line—which probably, in conse-

quence of a hugely-knotted casting-line, cannot be reeled up tight enough—to slacken ; and in this case the fish, somewhat recovering his strength, begins to flounder lustily on the sand, and presently jerks the hook out of its hold ; when the newly-escaped prisoner unceremoniously scuttles off like a "gone coon," if not to "ocean's coral caves," at all events to "river's shady pools."

Dressing of Reel-Lines.

Some sportsmen prefer rendering their reel-lines impervious to water by soaking them in a waterproof solution, by which they are supposed to be not only protected from the injurious action of damp, but also rendered lighter when in use, in consequence of not being soaked with water. However useful such a protection may be to heavy salmon, I object to it for trouting lines, as it will render them inconveniently stiff, and materially interfere with the delicacy required in casting. For the information of such as choose to submit their lines to this process, I give the following recipes, as being the best hitherto known—with this warning, that boiled linseed oil alone, which is the article most commonly used, accelerates the decay of all cotton or silk fabrics.

No. 1.—Baltic linseed oil, 1 pint ; whitest india-rubber, 3 oz. ; bees' wax, $\frac{1}{4}$ oz. ; gold size, 1 tablespoonful.

Cut the india-rubber into very small pieces, and let it simmer in the oil till dissolved, then add the wax. Keep the composition at a tepid heat, and allow the line to soak in it for a few hours, and then draw it tightly through between the finger and thumb, to remove all the superfluous liquid, when it is to be stretched between pegs under a shed to dry.

No. 2.—Linseed oil, 1 pint, reduced one-half by boiling ; to which is to be added a little camphor, and 1 gill of copal varnish. To be applied as No. 1.

No. 3.—Steep the line until perfectly soaked through in a solution of india-rubber in naphtha ; then remove the superfluous liquid as before, and extend to dry.

GUT.

The caterpillar of the silkworm, at a certain stage of its existence, spins around it a fine silken cocoon (the silk of commerce), in which it passes the aurelia or chrysalis state, preparatory to its issuing again into the world transformed into a winged moth. Now just previous to the commencement of this cocoon, which may be known by the caterpillar ceasing to eat, and while the body of the grub is replete with the silky secretion, they are killed by a momentary immersion in boiling water ; and on laying hold of each extremity and pulling the body of the grub moderately, it will generally separate near the centre, and disclose to view a greenish white coloured gut, which is not an intestine, but the

organ which secretes the silky matter for the purpose of forming the cocoon. This gut-like organ is taken by the extremities, and gradually extended until the requisite length and tenuity are obtained, when the ends are wound round wire pins fixed along each side of a board of the proper width; then exposed to dry and consolidate in the air and sunshine. Of course the greater the extension, the longer and finer the lengths of the gut will be; while the kind known as salmon-gut is comparatively thick and short, from being less extended than that used for trouting purposes. Gut of both kinds ought to be as round and smooth as wire; and for trout-lines it cannot almost be too fine, provided it is round and even. Gut of this description is incredibly strong compared to its dimensions. I never use gut for fly-fishing thicker than a fine horse-hair, and yet it is so sound and strong that I will undertake to kill any fish under three pounds with it by proper management. I may observe that nine-tenths of the gut offered for sale in the shops is flat, uneven, and of very inferior quality; and I would not accept of a waggon-load of it as a gift, especially if compelled to use it. I have seen

an implement similar to a wire-drawer's plate (viz. a small flat steel plate, perforated with different sized small holes), for the purpose of rendering flat inferior gut smooth and round. This it effects when the lengths are drawn through the holes in succession, according to the fineness required (beginning of course with the largest holes first), and it is rendered pleasing enough to the eye; but though divested

of its faulty shape and clumsiness by this process, it will still be vastly inferior in strength and durability to that obtained naturally round and perfect from the worm itself. This implement however deserves a place in the angler's cabinet ; as by its means he may be able to shape a hank of thick tape-like stuff, such as he may lay his hands upon in some out-of-the-way country shop, into something like reasonable shape and dimensions, and which may serve his purpose until he can supply himself with the genuine article.

In dyeing gut or hair lines our only object is to assimilate the shade of the gut or hair to that of the water, so as to render it as nearly invisible as possible ; therefore the proper tint and depth of colour in the line must altogether depend upon that of the water in which it is to be used. But in judging of this we must recollect that while we behold the line between our eye and the brown bottom of the river, the fish on the contrary see it between them and the clear blue sky ; and that with the exception of such as are to be used in dark mossy waters, the tinge ought to be only slight, most dyed gut being of too deep a shade, which defeats the purpose intended, by rendering the dark or nearly black line equally as conspicuous an object in clear water as a glaring white one, if not more so. Stoddart, in his useful work, "The Angler's Guide," says that "the walnut brown," and "the neutral tint" (recipes 1 and 2 in the second part of this work, the latter for clear waters), are, after many experiments made by him, found to conceal the gut-line best. But in my

opinion No. 7 gives the most delicate tint of any for clear waters.

The Disgorger.

Although this little implement may be regarded by many with a contemptuous sneer as a mere work of supererogation, yet allow me to say that it is an article indispensable to the comfort of the angler either in fly or bait fishing, as it not only saves an infinity of trouble in disengaging the hook from the mouth of the victim, but also no end of flies. By the use of this simple contrivance, which any one can fabricate for himself who owns a pair of hands, instead of thrusting and twisting for half an hour with the fingers in order to extricate a hook from the jaws of a fish (during which patience-breaking operation the fly is generally so much damaged as to be rendered perfectly useless after being a few times so treated), it is only necessary to tighten the gut line between the second and third fingers, and slip the fork of the disgorger down the line till it reaches the bend of the hook, then push it back till it is disengaged from its hold, when the implement is turned to one side in order to prevent the point of the hook from fixing itself in a fresh part of the mouth; and the whole thing is accomplished imme-

Fig. 5.
The Disgorger.

diately and expeditiously, without the slightest injury either to fish or fly ; and what is of equal importance, without so taxing the patience as materially to increase expenses at the confessional for absolution for certain nameless forms of speech uttered during the tedious process. Its use is still more decidedly apparent in worm-fishing, when the fish generally gorge the bait, and the only plan of regaining the hook adopted by those who have never seen this ingenious little instrument is to rip open the belly of the fish with a knife, or as I have seen a ready-made sloven do, with his fingers ; a practice which I need not say very materially damages their appearance, and renders them little better than as many mashed and half-cured herrings. But the disgorger avoids all this, and is equally efficacious in the belly of the fish as in his mouth.

It is thus made : Take a piece of brass or iron wire of sufficient thickness, and about 5 inches long, and beat out both ends till flat, then file a fork in one end, and round off the other, in which drill a hole for the purpose of attaching it to the coat button with a cord as shown in Fig. 5.

It may be also made of cane, bone, or any hard wood —an old German silver tea-spoon shank makes an excellent one.

The "Fly-Retriever" is a very useful little implement, recently invented by a correspondent of the *Field* with whose name I am unacquainted ; but I trust he will excuse me for giving my readers the benefit of his ingenuity. It is made of a thin rod of steel of the shape

of Fig. 6, with sharp cutting edges within the acute angle *a*, while the other end at *b* is made with a shoulder and a screw to fit into the shank of the gaff or landing-net. It is used for cutting away any twigs or branches upon which the flies may become entangled above head; and is exceedingly useful to such as frequent wooded streams.

Fig. 6. FLY-RETRIEVER.

A very useful adjunct to the angler's equipment, especially to the bait-fisher, is a loose flap or compound wallet, shaped as in Fig. 7, containing four separate pockets. It is to be hung in front of the waistcoat after the manner of a Highlander's philabeg, to which it is to be attached by a button sewn on for the purpose at each side of the breast. It may be made of any strong woollen cloth, and is used for carrying bait-boxes and other small articles. The shooter will find this a no less useful article than the angler.

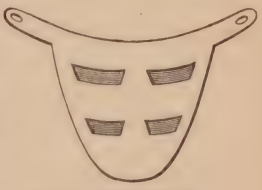
Fig. 7. BAIT-FISHER'S WALLET.

The diagram (Fig. 8), is a modification of a very

Fig. 8. POCKET RETRIEVER SHUT.

ingenious and convenient fly-retriever invented by Mr.

Parkin of Ravencrag near Penrith, which may be made to screw into the butt of the gaff or landing-net handle, and serve as a spear for the same as well. It is easily made of

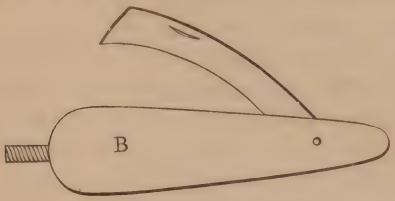

Fig. 9. Pocket Retriever Open.

two pieces of flat iron welded together at the ends, with sufficient room between for the knife-blade, which is only made to open half-way as in B, when used as retriever, while A shows the apparatus shut up as a spear.

Angler's Cabinet.

For the purpose of preserving fishing-tackle, materials for fly-dressing, etc., so as to keep them all stowed away together in an orderly manner, and be readily accessible when wanted, I would recommend the angler to provide himself with the following cabinet.

Instead of having flies here, hooks there, and silk and wax in a third place (perhaps a distant part of the house), occasioning more time and bother to hunt out and arrange the necessary materials and implements for dressing and fitting up tackle, then it does in completing the operation itself, let them all be kept together in

a tidy cabinet. It will prevent what happens not seldom, that some indispensable article or other is mislaid, and years perhaps elapse before it is again recovered, when it either must be replaced with a new one, or a total suspension of business is the result.

My own plan is simply this :—I have a small cabinet of mahogany, fitted up with drawers of various dimensions, to contain feathers, wings, hackles, dubbings, implements for dressing, etc.—in fact, my whole stock in trade—with folding doors in front to keep all snug. This I find to be a most convenient form of tackle-magazine, and I cannot do better then furnish you with such diagrams and directions as will enable you to have one made, either by your own hands, if you are fond of mechanics, or otherwise by those of the cabinet-maker. You will observe, in the first place, that by dividing a cabinet of this kind by a vertical partition down the middle, two different sets of drawers may be fixed in it, so as to face each way, and thus afford as much stowage as two separate cabinets. By a slight difference in the size and arrangement of the drawers on the two faces, one is rendered suitable for the preservation of salmon and pike tackle, while the other is devoted to the trouting department. And if the wealthy tourist wishes to go forth in heavy marching order, intent upon conquering satisfaction and amusement under all circumstances, in spite of adverse weather and lonely solitude, let him pack it up in a spare corner of his trunk, and he is provided against any emergency that may arise. Its stores will also afford him no small amount of

amusement, when a rainy day or two confine him to the dreary parlour of some lonely way-side inn, where the newspaper is three days behind, and the literature may be confined to such works as Brown's "Dictionary of the Bible," Boston's "Fourfold State," or "The Whole Duty of Man." But with his cabinet he can beguile his time by dressing flies adapted to the locality, or repairing and fitting up such tackle as may be required on the scene of his next exploits. And the hours, in place of passing away "with weary tick and slow," will flit past "with quick and cheerful wing," till returning sunshine once more summons him to the water-side.

The sides of the cabinet may be formed of two pieces of mahogany (or any other wood the owner pleases), each 18 inches in height, by 13 in breadth, and $\frac{3}{4}$ of an inch thick. And exactly down the middle of each side-piece, a vertical groove must be cut, in which to fix a thin partition, interposed between the backs of the drawers belonging to each front, so as to divide the cabinet into two distinct compartments. The top and bottom must also consist of solid pieces of wood, about $14\frac{1}{2}$ or 15 inches square, and they may be allowed to project a little, not only for ornament, but to afford a steady base to stand upon. A couple of folding doors of $\frac{1}{2}$ inch mahogany, must be attached to each front, so as to shut with a lock and key over each set of drawers, and keep everything secure. The drawers must be opened by means of counter-sunk rings flush with the surface.

A glance at Fig. 10 will at once show the size of the different drawers, and their positions in the cabinet; while they may be devoted to contain the following

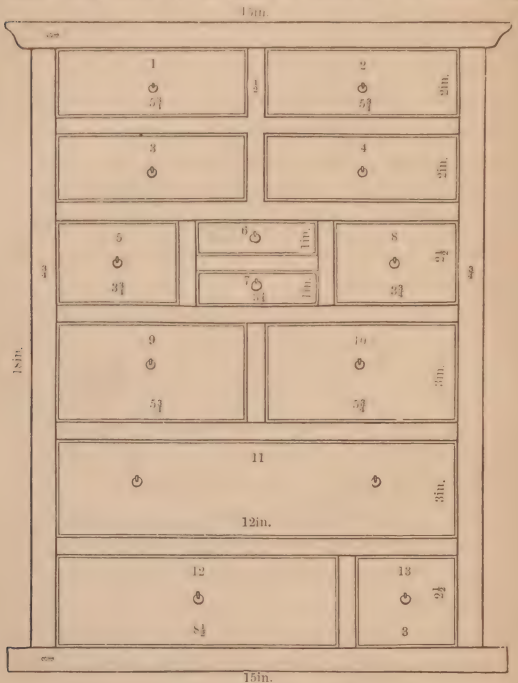

Fig. 10. ANGLER'S CABINET.

articles. Nos. 1 and 2 general drawers, No. 3 gut and lines, No. 4 hackles, No. 5 worm-tackle, No. 6 hook-drawer, No. 7 dressing-implements, No. 8 minnow-

tackle, Nos. 9 and 10 dubbings and furs, No. 11 feathers and wings, No. 12 dressed flies, No. 13 reels. Nos. 3, 5, and 8, may be divided transversely by a thin partition across the middle, if thought necessary, in order to secure greater order and separation among their contents. While Nos. 9, 10, and 11, may have a few transverse grooves cut inside, into which to insert movable partitions, so as to divide them into large or small compartments at pleasure.

The hook-drawer, No. 6, Fig. 11, is shown divided into

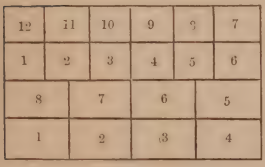

Fig. 11.

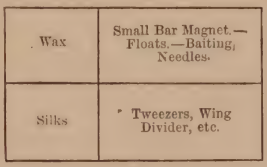

Fig. 12.

twelve compartments for fly-hooks, and eight for bait or worm hooks ; thus providing for a stock of nearly every size that is made, from the largest to the smallest. A printed number must be glued on each compartment, which will contain the corresponding number of hook.

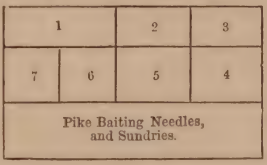

Fig. 13.

Fig. 12 shows the manner in which the drawer for dressing-implements, No. 7, is to be divided, in the trouting face of the cabinet.

The other face of the cabinet, devoted to salmon and pike tackle, may be fitted up precisely in the same way, only that the bottom drawer, No. 12 in the trouting face, may be extended the full breadth of the cabinet, and No. 13 for reels done away with, as salmon-reels are too bulky articles to be kept in such a receptacle, while as many of the drawers as can be spared may be devoted to dressed flies.

Fig. 13 shows the manner in which the hook-drawer of that face of the cabinet is to be divided. No. 1 compartment will hold salmon-hooks of the largest size made up to three inches in length, while the others will contain the intermediate sizes down to the smallest. Compartment 8 may be provided with a bar-magnet, besides netting needles and other etceteras.

A bar-magnet may be considered, at first view, as rather a strange piece of fishing apparatus; but recollect I do not by any means intend to drag the fish forth from the water by the sheer force of magnetic attraction, as you may suppose. I only use it for the purpose of lifting the hooks out of such of the small compartments in the hook-drawer as I cannot conveniently introduce my fingers into; and for this purpose it will be found exceedingly handy.

Dressed flies may be very conveniently stowed away in envelopes, each envelope containing only a particular kind of fly separate by itself, with its name and number corresponding to the dressing list marked upon it—what particular season, time of day, and river, it is specially adapted for—the period of its duration—time of appear-

ance and disappearance, etc.—together with any other particulars it may be useful to know, written on the back. The same will also form excellent cases for hackles, or loose feathers, or dubbings of any description, the particular kinds and colours being marked upon them in the same manner. And if the envelopes are adapted in size to that of the feathers, so as to have no superfluous paper, a vast number may be packed in the drawers devoted to them in the above cabinet.

Salmon-flies are best preserved by being stuck through loops of paper or thread attached to squares of cardboard.

Wading Boots and Stockings.

Those contrivances certainly protect us in a degree from the direct action of the cold water of the river, and to some extent shield us from its intensity; but it must not be forgotten that at the same time that the water from without is prevented from getting access to our limbs, the moisture exhaled from the pores of the skin within is equally as effectually prevented from escaping; and this, becoming condensed amongst the interstices of our garments, by the cold of the external water, keeps us nearly as thoroughly soaked in wet as if we were at once exposed to the current; the waterproofs in this respect exactly imitating the functions of the condenser of a still. But should it be the will of anyone to protect himself thus from the assaults of cold water, he may use either Macintosh stockings, which reach up to the middle of the thigh or the body, or boots of waterproof

leather. The stockings are the lightest and easiest to travel in, and the latter the neatest and most seemly. In using the former, the wearer should bear in mind to put on a pair of long, thick, home-knit hose next his skin, entirely woollen, with short-kneed small-clothes, over which the Macintosh stocking is to be drawn, and over them again a pair of socks, to prevent the shoe (which must be made especially for the purpose, and two or three sizes larger than those usually worn) from abrading it. Although this triplicate costume may render the foot of a smart young sprig of some five feet and a trifle, something larger in dimensions than the "clod-pressers" of the "Staleybridge Infant" (a noted pugilist of six feet two inches in stature), yet the whole will not be nearly so heavy and fatiguing as a pair of cumbrous leather boots; and should the children of every village through which he passes pursue him with extended fingers and derisive cheers, as will most likely be the case, I would not recommend him on any account to put himself out of temper, but pocket the insult as coolly as possible, and go on his way rejoicing.

To such as prefer the boots, from their greater neatness in appearance, I can recommend the following composition for dubbing them with, as being excellent for rendering them soft and impermeable to water.

WATERPROOF DUBBING FOR BOOTS.

Neat's-foot oil . . .	1 pint.
Turpentine	2 oz.
Bees' wax	2 oz.
Burgundy pitch . . .	1 oz.

Melt them over a slow fire, and apply it to the boots while moderately warm, keeping them warm before the fire all the time to allow it to sink in, when one coat may be given after another, till the leather refuses to absorb any more.

For my part, during the summer season, when the waters are warm, I am in the constant habit of wading without any protection whatever, and I never feel the slightest inconvenience from it; but I will by no means take upon me to say that everybody could do it with the same impunity, as it is a well-known fact that many people of weakly constitution have entailed upon themselves a life of misery from rheumatism and other diseases, by indiscreetly exposing their legs and feet to wet. And, as the safer practice, it will be better for the angler to avoid, if possible, both wet legs and all waterproof contrivances whatever, and content himself with enjoying his sport as best he can, "from mossy bank or pebbly shore." And though his creel may not exhibit so many trophies of his skill, he will at least be free from the disagreeable prospect of being condemned to swallow bushels of Blair's pills, endure the perpetual scalding of mustard-plasters, and the necessity for calling in the aid of a Bath-chair for the remainder of his life.

An excellent method of drying the inside of leather wading-boots, is to fill them with oats that have been heated and parched in an oven, which have then such an affinity for hygroscopic moisture, that if allowed to remain in over night, they will turn out next morning and leave the boots as thoroughly dry as they can be

made. If reparched, they will again be ready for a second operation. They ought to be put into the boots while still moderately hot.

Landing-Net.

For rivers with steep banks rising abruptly out of the water, or where the fish run large, a landing-net is an indispensable article. They may be had either circular or oval in form, and with rims either of wood or wire at pleasure, but the circular one with folding joints is by far the most convenient to carry, as it may be stowed away either in the creel or pocket of the sportsman when not in use, or slung across his back.

Fish-Pannier or Creel.

The ordinary fish-pannier is constructed of basket-work, and is both light and handy, but it has one grave fault—viz., that of allowing the fish to become completely shrivelled up and spoilt in dry warm weather. To remedy this, an oil-cloth lining, made to fit the inside of the creel or pannier accurately, to which it may be attached by hooks and eyes, or buttons, will both keep it clear of all filth, and prevent the fish from shrivelling in dry weather, while it can be removed and washed after being used. A pannier made of tin-plate also preserves the fish moist and fresh for any length of time, but it is rather heavy. If the latter is used, a few appropriate compartments may be attached either to the inside of

the back, or to the outside of the creel, in which to carry the clearing-ring, fly-retriever, a few pike-lines, or other adjuncts, and will not add materially to the weight, while they will be found very convenient.

Waterproof Bag.

To the angling tourist who may chance to fall in with different kinds of fish, some of which, as salmon and pike, would be too large to be stowed away in an ordinary sized trout-pannier, a waterproof bag made of Macintosh cloth will be found a much more convenient article than a creel or pannier. And if it is divided into two compartments by a longitudinal septum in the middle, it will be found exceedingly useful, not only as a receptacle for fish, but also for a shirt or two, fishing-tackle, etc.

List of Requisites.

As I have on many occasions witnessed considerable annoyance result from an absent-minded sportsman inadvertently leaving some important part or other of his angling gear behind—at one time a reel, at another his fly-book, etc.—and which unfortunate mishap probably was not discovered until he was about to commence operations several miles from home, I call the reader's attention to the following list of the various requisites for the different kinds of fishing in which he may be about to engage, so as to ensure him against any such casualty :—

Angling Card.

Fly-fishing Card.

1 Fly-Rod.
2 Reel.
3 Creel.
4 Wading Boots.
5 India-rubber Stockings.
6 Wading Shoes or Boots.
7 Landing-Net.
8 Spirit-Flask.
9 Sandwich-Box.
10 Spring Tweezers.
11 Disgorger.
12 Spring weighing-machine.
13 Sporting-Knife.
14 Pocket Knife and Fork.
15 Cigar or Pipe Case.
16 Fusees.
17 Fly-Book.
18 Scissors and Fly-Net.

Bait-Fishing.

1 Minnow-Rod.
2 Minnow-tackle Box.
3 Hook-Box.
4 Worm-Bag.
5 Minnow-Net.
6 Minnow-Kettle.
7 Gentle-Box.
8 Clearing-Ring.
9 Drag-Hooks.
10 Worm-tackle Box.

Salmon-Fishing.

1 Salmon-Rod.
2 Salmon-Reel.
3 Gaff-Hook.
4 Salmon-Fly Book.
5 Parr-tail Tackle.
6 Fish-Bag.

Pike-Fishing.

1 Trolling Rod.
2 Trolling Reel.
3 Pike-tackle Box.
4 Gaff.
5 Trimmers.
6 Bank-Runners.

It will be observed that a glance at the above will go far to prevent any disagreeable consequences from

a defective memory, and there have only to be selected on each occasion such things as may be needed; but on going upon an extended tour, where a variety of fishing may be anticipated, I generally take either the whole or the greater part of the articles enumerated, when, with some appearance of reason, I consider myself equipped for anything, from pitch and toss to trout-slaughter.

Every sportsman about to try his skill on strange waters ought to be provided with a varied and extensive assortment of tackle of all kinds, colours, and sizes, to suit all occasions and every variety of circumstances; and I would enforce upon the angler the advantage of being able to dress his own flies, and fit up his own tackle, so as to provide himself with what is necessary upon any occasion; as it will give him an immeasurable advantage over those who cannot do so, besides the increased gratification which every true sportsman feels in successfully using tackle of his own manufacture and contrivance. For my part, I attach twice the value to every fish brought to creel by a fly of my own dressing, that I do to those killed with a bought one. While, if the angler is an adept in this line, he can at any time alter or adapt his arrangements to suit circumstances: while on the other hand, he would be compelled to plod on, *nolens volens*, with such as the dealer thought fit to put into his hands, be they ever so far from what they ought to be.

CHAPTER II.

NATURAL CHARACTERS OF THE TROUT.

Natural Characters of Trout—Trout-parr, to distinguish from Salmon-parr—Usual Size of Trout—Sex of—Influence of Food on—Signs of Condition, and Varieties of—Thoughts on Hybrids—Spawning of—Hatching and Growth of Fry—Age of—Centenarian Fish—Number of Ova in—How Trout spend Christmas—Haunts of, in Summer—Proceedings of Poachers.

THE trout is eminently a predatory fish, has a short rounded head, and the palatine and maxillary bones, as well as the tongue, are thickly beset with short, sharp, recurved teeth. The skin is covered with small smooth scales, and divided into two nearly equal portions by a straight lateral line on each side running from the gills to the tail. The body is of a very graceful shape, full at the shoulders and tapering finely towards the tail. The back is ash-coloured, the sides yellowish-white, and the belly a silvery white, or in some large fish a golden orange; while the gill-covers and sides, as far down as the lateral line, are sprinkled over with small brilliant scarlet and black star-shaped spots, which, combined with its handsome shape and harmonious proportions, render the trout one of the prettiest fish of its tribe.

The fins, especially the pectorals, are of a deep orange-yellow colour, the others rather inclining to brown, while the dorsal is spotted with black, the same as the sides, and the two anterior rays of the anal fin are of a milky white colour. The caudal fin or tail is broad, and nearly straight on the posterior edge, or only very slightly crescent-shaped in the adult fish, but deeply forked in the young fry.

The parr of the trout, as well as that of every species of salmonidæ, is marked with transverse dusky bars along the sides, very similar to the salmon-parr during the first two years of their existence,* and can only be certainly distinguished from the latter at this stage by the aforementioned scarlet border on the superior posterior margin of the adipose fin; while in the salmon-parr this border is entirely absent, and the whole fin is of a uniform light brown colour. The gill-covers of the trout are also less acute at their posterior

* It is generally supposed that the parr marks disappear from the trout-fry in the second autumn after they are hatched; but in some rivers I am convinced they retain them for a considerably longer period, as I have taken hundreds, of eight and nine inches in length even, with the bar-marks as distinct as ever, while the slightly crescented caudal fin indicated that their age was much more than two years. In Wark Burn, Northumberland, I have frequently taken some peculiarly marked trout, having large, oval, bluish bars, interpolated with two rows of circular discs of the same colour; one above the lateral line, and the other below it. These discs vary in size from that of a sixpence to a threepenny-piece, gradually diminishing towards the tail; and are interposed near the upper and lower extremities of the oval bars, giving the trout a very beautiful appearance. I have never seen any trout so marked in any other river.

margin than those of the salmon, which may assist to distinguish the difference between them at this early period, but this is far from being so characteristic and reliable a mark as the adipose fin. The bar marks in the trout parr are also more numerous, narrower, and placed more closely together than in the salmon parr.

Trout are found to differ considerably in proportions, colour, and size, in different rivers and lakes, and even in different parts of the same river, according to the quality of the water, and the nature and abundance of their food. As witness the great disparity in size and colour between the little sable tenants of the mossy moorland becks, of four or five inches in length, and two or three ounces in weight, and their crimson-starred portly brethren of the lowland river, weighing nearly as many pounds. The average size of adult trout in most rivers may be said to vary from eight or nine to sixteen inches in length, and from half a pound to a pound and a half in weight. A well-proportioned trout of a pound, or three quarters of a pound, is *a good fish;* and there are many more below that weight than above it.

Although numerous instances are on record of common river-trout of immense weight being sometimes met with in the well-fed waters of the south of England, they must be considered upon the whole as rather rare, and an industrious angler may consider it quite an epoch in his life if he is fortunate enough to capture a real salmo fario of three or four pounds in weight.

The largest common trout I have ever heard of was one captured at Drayton Manor weighing 22½ lbs.,

and is now preserved in Professor Owen's collection. Another, two feet six inches in length, and weighing ten pounds, was taken in the Thames with fly, near Kingston, in Surrey, in the last week of April 1857, by a gentleman in the banking house of Drummond and Company. I have also heard of two other leviathans being captured in the Thames,* one weighing eleven pounds, and the other sixteen; while one taken in the Breamish with minnow was more than five pounds in weight; and trout of three to five pounds are by no means uncommon in the lower parts of the Till and Tweed. But those patriarchs of the streams are not to be met with every day, and a good-conditioned fish of one, or even half a pound, is by no means to be despised, at least in northern waters, where they do not generally run so large, although vastly more numerous than in the sunny valleys of the south.

The female trout has a deeper body and a smaller head in proportion to its length, than the male; and is considered to be of a superior flavour for the table. The flesh of those in prime condition, in a river where food is abundant, is of a delicate pink colour, and of a most delicious flavour when cooked; being superior, in my estimation, to all other fish, whether inhabitants of salt or fresh water, except the salmon, eriox, and whitling. The rosy tint of the flesh of the salmonidæ is caused by its being permeated by a red colouring matter, which Sir Humphrey Davy found to consist of a peculiar colour-

* We have frequent records of trout of from six to twelve pounds being captured in the Thames, the Severn, the Wye, and Trent.

ing principle, capable of being extracted by alcohol; and the quantity of this matter present in the flesh of both trout and salmon, depends entirely on the nature and abundance of their food. It is supposed to be most abundantly secreted by those fish that are in the habit of feeding almost exclusively on small fish and crustaceans at the bottom of the water. And it is a fact well known to many experienced anglers, that in every river there are certain fish which feed almost exclusively upon worms, caddies, crustaceans, and minnows at the bottom, and seldom or never rise to the fly; while others, again, feed almost entirely upon insects on the surface during the time they last. The former fish may easily be distinguished from the latter, by their exhibiting larger and more numerous black and fewer red spots on their sides, and by their bellies being of a shining silvery white, and flat underneath. The flesh of those fish will be generally of a fine pink colour, and rich in flavour; while that of the fly-taking individuals, will be comparatively white, flabby, and insipid. They will also be found much thicker at the shoulders in proportion to their length than the latter. Numbers of this kind of trout are to be found in the deeper parts of the Till, where caddies and every kind of bottom feed is abundant. As an evidence that the size, colour, and quality of the flesh of all descriptions of trout depend mainly, if not entirely, on the quality of the water, and the nature and abundance of the food, I may state, that if a small burn trout, as dusky as a Hotentot, is transferred from its native stream into a *stew* containing clear water, and is

there copiously supplied with food, it will shortly become as fair in complexion as the most favoured of its species, and in the course of time probably attain the respectable weight of four or five pounds.

This would seem to account for the somewhat singular fact, that in the same river, and where the same food is common to all, the flesh of some fish will be of a full pink colour, and of rich flavour, while that of others, apparently quite in as high condition, will either be white or of a yellowish tint, and comparatively insipid to the palate. I observe that Sir H. Davy says that such fish as feed principally upon small fish and flies have the black spots larger, and whiter bellies than the others; and he is probably correct.

The condition of a trout may be judged of by the thickness of the shoulders, the depth of the belly, the general firmness of the flesh, the brilliance of his colouring, the vigour and determination with which he resists his capture, the comparative smallness of the head to the bulk of the body, the brightness and distinctness of the spots on the sides, and the bright orange and silvery lustre of the fins and belly. A fish displaying all these characteristics will be in the primest condition, and generally have pink flesh.

In regard to the accidental production of cross or hybrid fish between the different members of the salmonidæ, Sir Humphrey Davy and others at the present time, not only very accurate but also highly scientific observers, seem to have entertained a notion that such mule fish were sometimes produced. And a series of

well-conducted experiments on this subject would certainly be of the utmost interest; as a fish partaking both of the qualities of the salmon and the common trout, blended together, would indeed be a valuable acquisition to our waters, provided it were capable of perpetuating the race. But it seems to me highly probable, that nature may have fixed an insurmountable barrier to such anomalous modes of propagation amongst the finny tribes, by rendering the spermatic fluid of one species incapable of fæcundating the ova of another. Were it otherwise, from the indiscriminate manner in which that fluid is shed abroad in the water during the breeding season, by several different species, at the same time in the same river, and its consequent liability to be brought into contact with the newly-excluded ova of other species and varieties similarly occupied; if it was capable of impregnating them, it would give rise to endless cross varieties of fish, and speedily involve the whole genus in inconceivable anarchy and confusion: a proceeding so totally at variance with the usual perfect order and harmony of nature's plan, as to render such anomalous impregnations of doubtful result.

The majority of trouts spawn in the months of No-

* Since writing the above, the experiment has been tried by Mr. Frank Buckland, and a numerous progeny of hybrids between the salmon and common trout have been artificially produced, by impregnating the ova of the former with the spermatic fluid of the latter. But that those mules will ever be capable of again propagating and perpetuating the species, is highly improbable. However, that talented and distinguished naturalist is at present engaged in endeavouring to solve the problem.

vember and December; although some fish are caught with the milt and roe nearly fully matured in the beginning of September, and a larger number in this state in October; others again are not prepared to complete the spawning process until January; and even some exceptional specimens will be found full of roe in April and even May. Hence the spawning season may be said to extend from the middle of September to the middle or end of April; but the great bulk of the business is disposed of in the months first named. Some fish may be caught in good condition during any of the winter months, and are hence supposed to be altogether barren, as neither milt nor roe is to be found in them; but these, in my opinion, are merely such as have spawned very early in the season—perhaps in September—and recovered their condition again before winter set in.

On the approach of the spawning season, the trout commence to migrate from the lower deeps of the rivers towards their sources, and enter all such rivulets or mountain-becks as afford clear waters, shallow gravelly beds, and other requisites for the safe deposition of the ova, and the hatching of the fry. They generally take advantage of a flood during the latter part of September or October, to ascend the smaller streams: and in their efforts to reach their spawning grounds, will endeavour to surmount every obstacle, with incredible energy and perseverance. Dams, bridges, and weirs, are ascended one after another; and it is almost beyond the belief of any one who has not been an eyewitness of the height to which they can spring in surmounting a barrier, and

the power of a current they can withstand, that such small creatures are endowed with such wonderful muscular power.

The ova remain in the spawning-beds for from two to four months, according to the temperature, before the young fry are excluded, which is generally some time in April; but the period of their hatching is either considerably expedited or retarded, according to the general mildness or severity of the season. It would appear, from observations recently made, during the artificial breeding of salmon, that the rays of light exert an injurious influence, both upon the impregnated ova, and the newly-hatched fry; causing the former to become of a dull white colour, and to prove abortive; while, if the latter are exposed to it during the first ten days of their existence, the yolk-bag, which remains suspended to the abdomen, for the purpose of supplying them with nourishment until they are able to seek food for themselves, speedily shrivels up, and the death of the parrlet is the result. It will thus seem that the fry necessarily remain concealed from light for a short period after they are excluded, among the interstices of the gravel.

When well fed, the fry are said to grow rapidly; and according to some experiments instituted for the purpose of ascertaining the rate of their growth, they have been found to attain the length of six inches in six months, and from eleven to fifteen inches in fifteen months; while at the end of two years some of the fish in the pond where the experiment was made had attained the length of twenty-two inches, and a weight of three

pounds—a pretty rapid rate of increase certainly. But I should consider the rate of growth above stated to be very far beyond their ordinary scale of development in rivers, where perhaps only one in a thousand ever reaches the weight here indicated, and must have been owing to the extremely nutritious quality and abundance of their food.

Another interesting subject to the scientific sportsman, is the ordinary duration of the life of trout, and the question whether or not they continue to increase in dimensions for an indefinite period.

I think I need scarcely waste time in refuting such an absurd idea, as, if there was to be no definite limit to the age and growth of fish, we might be saluted some fine morning in our piscatorial wanderings, by a venerable trout as old as Methuselah and as huge in dimensions as the kraken of Norway. The only information I can give on this subject is the result of experiments made by a gentleman upon trout preserved in a pond, and related by Mr. Daniel in his "Rural Sports." According to that authority, the trout attains its full growth in four or five years, which in some specimens of that age amounted to a length of thirty inches, but the majority were considerably less; that for a period of three years more, after arriving at maturity, they remained in a stationary condition, with very trifling alteration, either in size or quality; but in two years more—the ninth or tenth of their existence—the head seemed to become disproportionately enlarged, and the body lank and wasted, and during the winter succeed-

ing those symptoms of old age, they died. According to the above computation, nine or ten years seems to be the allotted term of a trout's existence,—a period which savours much more of the truth, than many of the wild legends we have been told concerning the fabulous ages to which fish have been said to attain.

That trout continue to increase in magnitude up to a certain reasonable age, then remain stationary for a few years more, and finally decline and exhibit the ordinary indications of old age and degenerated powers like other creatures, is extremely probable; it bears at least strong *prima facie* evidence of truth about it. And we must attach just as much credit as it is worth, to the story of the venerable piscine patriarchs in the royal ponds at Marli in France, which are said to have lived since the time of Francis I.; as well as to the biography of the celebrated pike, which is said to have enjoyed himself for 267 years, and was alive and kicking at the end of that time in a pond in Swabia, into which he was put by the Emperor Frederick II., in the year 1230, with a brass collar around his neck, recording the date and the circumstances under which he was distinguished by the imperial favour! As his decease has never been registered, this antiquated fish may yet be alive and merry, and resting his patriarchal cranium, upon which more than six centuries have shed their accumulated snows, in jolly old age, beneath the shade of some verdant waterlily, for anything I know to the contrary. Compared with such specimens of longevity as these, Old Parr himself was a mere baby.

As regards the size of the *ovum*, it seems a settled natural law that the size of each individual egg in each species of fish is fixed and uniform, and perfectly independent of the dimensions of the individual containing them; while, on the other hand, their number in each case essentially depends upon the magnitude of the parent fish. Thus, the egg of a small trout, not longer than the finger, is individually quite as large as that of a fish, belonging to the same species, three pounds in weight; but the number of eggs in the latter will amount to several thousands, while those in the former may not exceed thirty or forty. The number and size of the ova differ widely, however, in different species. The egg of the smelt is much larger than that of the cod-fish; and while the weight of the former, in its adult state, is only three or four ounces, that of the latter sometimes reaches forty pounds. While, strange as it may seem, it is nevertheless true, that the ovum of the stickleback, the least of the finny tribe, is more than six times larger than that of the smelt, and consequently very much larger than that of the hugest cod,—a circumstance not a little wonderful when the dimensions of the two parents are compared; but where the stickleback will only spawn a few ova, the female cod will deposit many thousands.

Although it may be a matter of small concern to the mere pot-fisher to know what becomes of the trout after the spawning process is completed, it is an inquiry of some interest to the intelligent and scientific sportsman.

From personal observation, combined with other sources of information, their *modus operandi*, after com-

pleting the great work of reproduction, seems to be as follows :—In all considerable rivers, where no insurmountable impediments exist, the trout, after completing the spawning process in the shallow waters near their source, take advantage of the ensuing autumnal floods to return to the lower parts of the river, where they remain in the deep still pools, where the water near the bottom will seldom or never be colder than 40° F., the point at which it is the most dense and heavy. And consequently, in a still pool of any considerable depth, where there is no disturbing current, all the water of a lower temperature than this, being of a less specific gravity, will float on the surface until frozen into ice without the temperature of the strata near the bottom being sensibly diminished, as water is a very bad conductor of heat. In those warm strata, the trout will be enabled to exist in a comparatively mild temperature, even in the severest season, no matter whether the surface is frozen or not ; if so, so much the better, as the strata underneath will be then effectually defended from the action of the cold air above. It is my belief, at least, that all those fish which have spawned sufficiently early in the autumn to enable them to partially recover their strength and condition before the severity of winter sets in, migrate back again to the deeps in the lower parts of rivers, where they continue to live and feed much in the same manner as they do at other seasons, all the winter through ; and where the enthusiastic votary of the rod may still pursue his vocation with a limited amount of success, if he chooses to follow them into their retreats with a well-

scoured worm, and brave the risk of losing his nasal appendage, as well as some of his toes, from frost-bite.

On the other hand, where any downward migration of the fish is barred by an insurmountable obstacle, such as a waterfall; or in some small swift streams where the current is perpetually mingling and exposing the whole body of its waters to the contact of the cold air, and where no such friendly deeps exist in the lower parts of their course; or when the fish have been too late in spawning to recover before the severity of winter sets in, the case is very different. And from my own observations I am inclined to think that they retire, in such cases, on the first occurrence of severe frost, to the most secluded spots they can find in the immediate neighbourhood, and insinuate themselves into holes in the banks, underneath large stones, the roots of bushes, the rubbish collected about piles and weirs, and other places of refuge, from cold and the violence of floods, embedding their bodies in the mud as much as possible, as an additional protection from the severity of the weather. In such retreats they usually pass the winter in a semi-torpid state,—lank, lean, and lousy,—and seldom or never venturing forth to feed, until the balmy breath of early spring has swept the snowy mantle of winter from the earth, and shedding her beneficent smile abroad over the waters, awakes them from their slumbers to breast again the crystal streams, and rejoice with all creatures in the dawning resurrection of nature.

In corroboration of this, I have on several occasions seen trout of various dimensions dug out of retired holes

in the banks amongst watery mud, in an extremely emaciated and semi-torpid condition, whilst making weirs and other improvements to a small river. And I remember, on the 8th March 1852, I examined the Breamish in order to see if they had yet taken the streams : the day was bright and calm, and I could distinctly observe every inch of the bottom of the water. In the lower and deeper parts of it plenty of trout were abroad in the sharp streams, apparently on the feed ; but two or three miles higher up, where the river is smaller and shallower, not one was to be seen. But in a back water connected with the main river, in which there were a number of old piles surrounded by wreck partially sanded over, I observed a large drove of small trout, ranging from four to eight inches in length, and about one hundred in number, congregated together like a shoal of minnows, and which had evidently newly emerged from their winter quarters.

In a forward season, about the end of February, or the first week in March (I speak of northern waters), the great majority of trout leave their winter retreats ; although, in a more than ordinarily mild winter, an occasional early-spawned fish that may not have migrated, will venture out to feed during the heat of the day ; and I once caught two dozen fine fish on the 24th of January, with worm. On first emerging from their retreats, they generally betake themselves to the still deeps for a few days, until their strength is sufficiently recruited for more active exertions, when they next repair to the tails of streams, the shallows, and gentler

currents; and finally to the strong streams and gravelly rapids, for the double purpose of obtaining more abundant food, and getting rid of the lernæ and other parasites that may have infested them during their winter torpor. Numbers of those which had retired to the lower deeps of the river in the autumn, now reascend, and station themselves for the season; generally preferring a stream or pool that has been in existence for a year or two, to one newly scooped out by the winter floods. I scarcely ever knew a newly-formed stream hold a single fish worth anything for the first season, however perfect and inviting it might appear; and so satisfied am I of the fact, that I never waste time in fishing it. The reason probably is, that the beds of such streams do not contain any crustaceans or larvæ in their beds for food.

The favourite haunts of large trout during summer, are such places as an eddy behind a stone, or where two currents meet; the pool below a ledge of rock or gravel; behind or underneath a large stone or log of wood; the hollow under a bank, especially if the current sets against it; beneath lumps of turf in the middle of the stream, roots of trees, under the shade of overhanging bushes, and in pools into which sharp streams and rapids fall. In small rivers they frequently ensconce themselves under sedges and weeds, especially in the beginning of the season, before their strength is fully restored, and also during the heat of the day in summer, when the waters are low. But when in full vigour and on the feed, they will be mostly found in the swift streams, and often in the upper part of mill-races. Fish will also be

found under bridges (for the purpose of keeping themselves dry, as Paddy supposes), and in the return of a stream, where the water boils round in an eddy. During extreme heats in the middle of summer, and towards the autumn, they mostly resort to mill-tails, the tails of streams, and the still deeps, where good sport may be had with the fly, during a brisk cool wind.

As a general rule, about the end of May or beginning of June, after the heats of summer have fairly set in, and the waters become low, all the small and medium-sized trout congregate in the still water at the tails of streams; while the larger ones snugly ensconce themselves beneath hollow banks, roots, bushes, or any other available retreats during the day: scarcely ever coming out to feed until the shades of evening summon them to chase the minnows in the shallows, or gulp down any luckless moth that may inadvertently alight on the treacherous water. It is then that the accomplished minnow-spinner, adroitly manœuvring his bait in the rapids and shallows under the encircling mantle of night, will succeed in hooking his one, two, and three pounders, in places which in the daytime seem scarcely fit to float a stickleback; or the enthusiastic fly-fisher will ever and anon hear a sullen splash, and feel a sudden and determined pull at his portly moth flies, very unlike the tiny tug of the little shipjacks he is in the habit of pitching over his head during the day. While the professional poacher, whose daily allowance of beer very much depends upon the amount of piscine plunder he is able to glean from the waters, may be observed cunningly sneaking, with

cat-like step and vulpine eye, towards Mr. Stingyback's preserve: and there, while cautiously kneeling on one knee—one of his visual organs directed to the river, and the other behind him to watch the approach of the keeper, and with his nose almost poked among the gravel lest the fish should get a glimpse of his sinister phiz—he pitches a well-scoured worm into the stream opposite, with as long a line as a powerful rod can guide, just as the first grey of dawn begins to dapple the eastern sky. Tug goes the line; birl goes the reel; and after a short but fierce struggle, a magnificent two-pounder lies gasping on the sand. Thus he continues to capture numbers of the finest and largest fish in the river, which at this season feed almost exclusively at night, and during the early morning until five or six o'clock A.M., when the vigorous rays of the returning sun send both the human and piscine prowlers to seek for refuge and repose.

CHAPTER III.

SENSE OF SMELL IN FISH.

Sense of Smell in Fish—Midnight Kettle on Tweed—Bobbing for Eels—Olfactory Organs of Fish—Auxiliary Organs of Taste in Pike—Scented Baits—Sense of Hearing in Fish—Effect of Meteoric Changes on Fish—Sport-Indicator—Fatal Effect of Severe Winters on Trout and Aquatic Insects.

DO fish, or do they not, possess the sense of smell? is a question that has often occupied my thoughts, and on which I have never been able to arrive at any definite conclusion. I am inclined to think, however, from all my observations, that they certainly do to a certain extent; as all fish that I have seen are furnished with valvular openings or cavities on the upper part of the snout, that have very much the appearance of nostrils, or organs of smell at least, if they do not perform similar functions to those of air-breathing animals. Besides, we have heard of such things as scented worms, and other odoriferous baits being used by the cunning professors of the art, ever since the days of honest old Isaac. Moreover, my conviction that certain species of fish, if not all, possess this faculty, is strengthened by experience.

On one occasion, on the Tweed near Coldstream, I was taking a cast for salmon. The weather was uncom-

monly clear and bright, and the water very low after a long drought, so that my chance of sport was only a degree or two above zero. After fishing nearly all day without a single rise, Willie Scott, the obliging farmer of the fishery, invited me to join him in the evening, while his men drew the water with the nets ; and baiting his invitation with the promise of a grilse, I readily acceded, and repaired to the river-side at the appointed time. Shortly after my arrival the fishermen commenced operations, but Mrs. Glass's wholesome advice—"First catch your hare, then skin it"—constantly occurred to me, as they netted more than two miles of water before anything was met with. When, however, they were just about to cease from their labours in despair, the last sweep of the net brought to land a solitary seven-pound grilse. Willie tapped this lucky but truly odd fish upon the head, and immediately transferred him into a kettle of boiling salt water. We then adjourned to the *bothy*, which was situated close to the river-bank, and there, by the roaring fire over which the fish-kettle was suspended, we seated ourselves in happy contentment. Once the fish was pronounced sufficiently cooked, it was apportioned out in shares to each member of the company, together with bread and real Tweed sauce—the salt water in which it was boiled ; and I need hardly say we found it deliciously crisp and full of firm curd, very unlike the miserable apology for fresh salmon we are accustomed to get in inland towns.

Our worthy entertainer then intimated that he had prepared a farther treat for us, in the shape of midnight

sporting, and that he would proceed to "bob for eels," which are very numerous in the Tweed: so much so, that they are considered quite a nuisance by the fishermen; as these sly and voracious gentry frequently attack the salmon captured in the cairn-nets, and scooping out the whole interior of the fish, leave only the bones and skin. The apparatus for "bobbing" was thus prepared: Taking a moderate-sized stocking-needle, with about a yard of worsted yarn, he proceeded to thread a quantity of worms upon it, by drawing the needle and worsted right through their bodies from head to tail, and sliding them close upon each other, until the latter was converted into a complete string of worms; he then doubled it up into five or six loops, and tied it in the centre to a piece of whip-cord about three feet long, but which, as a rule, must always be of sufficient length merely to reach to the bottom of the stream intended to be fished, and no more; the other end of the cord must be attached to a short stout stick—a walking-stick or broom-handle will answer the purpose very well. These animated loops, very much resembling the hair of Cerberus, hung like fingers from the cord, when the whole was ready for action.

Embarking in the boat, we rowed to the head of a stream about three feet deep, and casting overboard a couple of large stones tied to ropes—one at the stem, and the other at the stern—we moored her broadside to the stream; and by the whole crew sitting towards the low side of the boat, we brought her gunwale within two or three inches of the water, and then dropped our singular tackle, of which we had three or four sets, into the

stream, allowing the worms to rest on the bottom. Willie stated that it would be a quarter of an hour or so before the eels below us had time to *feel the smell* of the worms, and make their way up, and suggested that in the meantime, it would be advisable to light the *cutties*, and taste a drop of the "creature;" which sensible proposition was seconded by the boatmen, and carried, *nem. con.* For the first ten minutes or so, not an eel disturbed our apparatus; but, according to his prediction, in little more than a quarter of an hour, we were literally beset by legions, which seemed to congregate from all parts of the water, and kept up an incessant tugging and tearing at the worms, like a pack of hungry hounds at a carcase.

As soon as we felt one of the fellows give two or three hearty pulls, so as to indicate that he had gorged one of the worms, with a portion of the worsted, we quickly hauled the apparatus into the boat, when master eel, unwilling to lose his supper without a struggle for it, kept his grip like grim death, until poised high in air immediately above the boat, he dropped quietly down among our feet, and wriggled about in the bilge water to his heart's content, until the time came for giving him his *quietus*, by a stab through the neck, so as to divide the spine.* Some people have rather a nervous objection to those slimy individuals wriggling about amongst their legs, like aquatic serpents, but the veteran sportsman has no such qualms. In order to be certain of a capture,

* Perhaps it may interest bottom-fishers to know that the quickest method of despatching these wonderfully tenacious gentry, is to give them a smart blow on the belly, just above the vent, with a small stick.

it is necessary to allow the eel to gorge a portion of the loop well down, which may be judged of by the lustiness of his pulls at the apparatus, and then to transfer him with celerity from the water to the boat, one gunwale of which is kept near the surface for this purpose. It is the common opinion that the teeth of the eel become so entangled in the fibres of the yarn, that he cannot disengage them in time to escape; but this I regard a fallacy, and ascribe the fact of his holding on till lifted out of the water, rather to the savage tenacity with which he grips anything he lays hold of. Only present the tip of a stick to a newly-captured eel's mouth, and with what pertinacity the slimy gentleman will keep his jaws closed upon it! This kind of fishing can only be successfully prosecuted during a rather dark night, when the eels are unable to see the boat and crew above them.

After pursuing our novel, and by no means disagreeable sport, for about three hours, during which time we managed to take upwards of twenty pounds' weight of eels, the moon, which had been gradually illuminating the verge of the eastern horizon, at length showed her crescent through the tall belt of trees, that fringes the English banks of the Tweed at this part, and rendering us visible to the voracious but crafty crew below, they ceased taking.

I shall now ask, what other sense except that of smell, or something analogous to it, could possibly inform the eels of the presence of our worms in the water? as it was evident that none were present in the immediate vicinity when we commenced operations, and

that a short time afterwards, shoals of them came, probably from a considerable distance, on the current conveying the taint to them. They could not possibly obtain this information through the medium of sight, as the night was too dark for even our boat to be visible only three feet above them ; and they had apparently collected from a considerable distance below. Neither could it well be the sense of taste that was their guide in this case, for the gustatory nerves in fish are very meagerly developed indeed, as the physical conformation of all the organs of the mouth would lead us to suppose. The tongue, for instance, the chief seat of the sense of taste in the higher animals, is in fish composed principally of bone, and dense insensible cartilage, on which no nervous papillæ ramify. In corroboration of my opinion, it will be found that if blood be poured into a river, it will very shortly put every eel within half a mile below in motion, and apparently eager in search of the food ; while, if little be poured in from time to time, they will be seen following up the scent like a pack of hounds. Or again, if the entrails of a fowl, or any other garbage, is enclosed in either the centre of a bottle of straw, or even in a wooden box with a hole in it, they will be certain to find it out in a very short time; and such may be converted into efficient eel-traps. What sense then but that of smell, enables these fish to discover the presence of substances placed in positions where they cannot possibly be seen ?

In pike-fishing also (and I have caught some scores), I have invariably found that a bait that had been kept

so long as to become stale, would never induce a single fish to take it, although to the eye there was no difference in its appearance. Again, as an experiment, I have purposely set night-lines in the middle of dense masses of weed, and in some instances in the centre of a bunch of rushes, with lines all around them in the open water, baited with trouts a little stale (but only to be discovered by the smell), in a back water of the Till, where those fish were rather numerous, and invariably I found the fresh bait taken in the morning, however impossible it was for it to be seen by a fish passing within a few inches of it; while the stale baits in the open water, though easily seen at some distance, were as invariably left untouched. To assume then that the eye of the pike was capable of detecting any change in the appearance of the bait, in the middle of a dark night, which the keenest-sighted sportsman could not discern in open day, is simply preposterous.

To a certain extent, crepuscular vision may materially aid in their nocturnal prowls in search of food, especially during moonlight, or when the night is not very dark; but it is not possible to suppose that any amount of crepuscular vision could enable the eels to see the worms deposited in the river half a mile above them, the pike to discover a trout concealed in the middle of a weed-bed or bush of rushes, or to discriminate between one newly caught, and another in an incipient stage of decomposition.

Crepuscular eyes can only collect and condense what feeble and scattered rays may be diffused around; they cannot create light, nor discern objects in total darkness.

any more than those of ordinary construction can. How then can a fish, or any other nocturnal animal, capture his prey by the aid of sight alone, in the midst of utter darkness, as is often the case, unless he were either made aware of its proximity to him by the sense of smell, or some analogous faculty, equivalent to either?

And now that I am convinced that all predaceous fish (and what fish are not more or less so—to eat and be eaten being the order of the day with them?) pursue their prey almost, if not more, by smell than by sight, I do not regard the assertion of some of the ancient authors on angling, that certain odorous substances, when applied to the bait, render it more seductive to the fish, to be such a whimsical absurdity as some may at first sight imagine. On the contrary, I believe it is quite within the range of probability, that certain scents or perfumes applied to the baits may be found to excite the appetites of the fish, in the same manner as the savoury odour of a beefsteak excites the gustatory nerves of a hungry man. It is stated, that if the hands are rubbed over with assafœtida, trout will be so overcome by its odour, as to remain motionless until they are laid hold of.

It is also said, by the way, that the odour of this drug will so overcome rats, that they may be handled with impunity, and will neither offer to bite nor escape; and that the valerian plant will attract all the male cats in the neighbourhood, as well as even excite both the lion and the tiger! These may be all facts, for anything I know to the contrary.

A knowing cove of our fraternity once told me, that

by mashing up a lot of worms into a pulp, adding thereto a little gin, and dipping the bait into this mess, the angler might take his stand on any river-side, and become the centre of attraction to all the fish about. Now, although I may incur the risk of being laughed at, I boldly declare, that I do not regard the above as an altogether nonsensical idea, if the gin be left out of the medicament; as all fish that I have ever come in contact with were most rigid *water-totallers*, and regarded strong drinks of every description with as wholesome a horror, as the most straight-laced, sour-souled, disciple of Father Mathew could wish. It is plain that a powerful taint of the worm would thus be conferred on the bait; and it is not at all improbable, from the evidence we have before us of the influence of smell on fish, that they may be by such means readily attracted towards it. And I shall moreover suggest, that if an angler take his stand on a quiet part of a river, where the water is moderately deep, and the current not too strong, he may find that a bag of worms sunk to the bottom of the water, immediately above where his bait is cast in, will shortly be the means of attracting to the spot many fish, and especially eels. I have little doubt but what the many mythical and wonderful stories, of certain cunning old practitioners being able to capture whole cart-loads of trout at pleasure (when other professors of the art could get none), by means of some mysterious charm, have their origin in some such plan; which is much more feasible than the virtues of any chemical drug.

CHAPTER IV.

FLY-FISHING.

The Characteristics of a True Sportsman—Proper Flies for each Season—Different Flies for Different Times of Day—Dark Flies for Cold Weather, and *vice versa*—Rule for Choosing Flies for the Day—Natural Flies vary in their Numbers and Times of Appearance in Different Seasons—Diary of Flies on the *Breamish*—Table of Favourite Breamish Flies—Best Weather for Fly-Fishing—Model Day for Fly-Fishing—Small Flies.

AS this department of the angler's art is universally considered the method, *par excellence*, of capturing such members of the finny tribe as will rise to the fly, especially by sportsmen whom fortune has favoured with access to those clear and crystal streams which are more peculiarly adapted to this pursuit, it will necessarily claim the first consideration at our hands. And I need scarcely remark, that to become an adept in this particular branch, requires a very considerable amount, not only of manual skill and dexterity, but of scientific knowledge of the habits and instincts of the fish the angler is in pursuit of, and of the different insects whose imitation lures them to destruction. Judgment also is required in their selection and use; and this is only to be gained by practical experience, and a close and keen

observation. The amount and kind of knowledge that is only sufficient to enable its possessor to capture fish by the rule of thumb—or, in other words, no rule at all except blind chance—however well it may beseem the narrow capacity of the pot-fisher, who cares for nothing but the carcases of the fish, and would as readily take them by the net, as by any other means, is totally incompatible with the critical and varied acquirements of anyone who aspires to the dignity of a true angler.

I do not by any means regard that man as entitled to the designation of a sportsman—whether he be a shooter, a fisher, or a fox-hunter—who merely prides himself upon the quantity of birds or fish he can manage to kill, or the number of horses he can gallop to death, in the course of the season. The nocturnal poacher can achieve quite as great things with his nets, either in the fields or the waters, while a trained monkey could unquestionably perform feats equally sensational and irrational, over five-barred gates, break-neck stiles, and bottomless quagmires, probably in a much superior style, for Jocko can stick to a horse's back like a ball of wax, and in this respect excels any of his human prototypes.

It is different, however, with the scientific angler. He would glory much more in taking half a dozen fish, in difficult water and weather, when the best efforts of the "rule-o'-thumb" fraternity were of no avail, by the exercise of superior judgment in using a fly proper for the season and water, than in capturing whole creelfuls, in some remote moorland burn, where the hungry fry will voraciously gulp down anything having

the size and shape of an insect. And it is only in shy waters, and in unfavourable weather for the sport, and where the fish are coy and difficult to take, that the superiority of the accomplished fisher over the ignorant pretender is fairly exhibited.

Many accomplished anglers, and authors as well, are under the impression that on every river, certain peculiar flies will be more alluring to trout all the season through, than any others that can be offered them. And this mistaken notion is most prevalent with southern sportsmen, where the rivers are ill adapted to fly-fishing, and where that mode of fishing is but seldom followed and little understood. As a case in point;—in "Fly-fishing by Ephemera," not one of the flies in his list, with but one solitary exception, the dark dun, has the slightest resemblance to any aquatic insect that God ever created; nor in the clear oft-fished waters of the North, would they have ever an ephemeral chance of filling a basket at any season of the year. My own opinion, derived from long experience and a close attention to the matter, most decidedly compels me to arrive at the conclusion, that unless the artificial flies resemble as closely their natural prototypes frequenting the waters at the season fished in as the art of the dresser can make them, the angler may as well remain at home, and whip for imaginary whales in his wash-hand basin.

Some sportsmen, however, argue that trout will seize with avidity anything having resemblance to an insect moving through the water, regardless of its shape or colour: and that the artificial representative of one fly

is quite as good as another, so far as the capture of trout is concerned. If these be not their precise words, at least it is their literal meaning. Now to this doctrine I beg most decidedly to demur, as being contrary to experience and common sense. And the only excuse I can offer for otherwise observant masters of the art advancing such an absurd theory, is that such gentlemen have almost entirely been in the habit of pursuing their sport in the rivers and lochs of bleak and mountainous parts of Scotland, where the fish are scarcely ever disturbed by the shadow of an angler; and where insect life is so rare, that not more than two or three different species of fly may ever be seen during the whole season. There, I have no doubt, the unsophisticated natives will occasionally endeavour to gratify their powerful instinct for insect food, by hazarding a snatch at anything having a semblance of insect life, however slight it may be. But try such nondescript libels upon Nature's handy-work, as are frequently recommended to the angler's notice, in some of the more southern and much fished waters, where different species of natural insects abound; and the credulous and deluded specimen of humanity, who pins his faith upon the efficiency of such eccentric creations of the inventive faculty of the angler, will speedily find to his disgust, that neither "Long Tom,"—"the Grizzly King,"—nor "Green Mantle," will effect anything more with the fish, than induce glances of surprise and fear at the grotesque appearance of such monstrous *lusus naturæ*.

If we take, for example, Stoddart's Standard fly for

all waters and all seasons, "*the hare ear and woodcock wing*," which has a better claim to notice than many creations of the fly-dresser's fancy, as its natural prototype visits the water in May, we may find it an excellent killer in its proper season. It may also be at all times attractive in remote northern rivers, for anything I know to the contrary;—but for my own part I never could succeed in bringing to land above half a dozen fish in my life with it, *out of its own season*, in the Northumbrian streams, and I have tried it frequently. How does it happen then, that it is more successful at one particular season (the month of May), than any other? Again, if it be true, as many assert, that trout seize indiscriminately upon anything that bears a resemblance to an insect in motion through the water; how comes it, that perhaps one particular fly of a certain colour upon the cast will take nearly every fish that is caught during a whole day's fishing, while the others, equally well dressed, and equally resembling living insects, will scarcely take one?—a fact patent to every experienced fly-fisher. How again does it happen that many a sportsman, though provided with the most beautiful of flies, may sometimes continue thrashing the water like a battery of men and angels, and with all the energy of desperation, without being rewarded by anything but disappointed hopes; while the fish all around him literally keep the water in a boil, with their risings at the *natural* fly? The answers will soon be discovered if he will condescend to lay hold of one of the real insects on which the trouts are feeding, and attach to

his cast an artificial one resembling it in size and colour, when he will probably succeed in filling his creel within an hour or two.

On the other hand, it is equally certain, that successive tribes of insects regularly come into existence at certain periods of the season, which the fish feed upon in preference to all others while they last; or until a new species appears upon the stage. As one tribe completes its allotted work in the great plan of creation and disappears, another succeeds; and as new species appear, the old favourites are neglected. Thus we frequently find the very fly which was taken with avidity in the morning looked upon with the greatest contempt piscine eyes are capable of, when a new belle makes her debut in the afternoon. So fully am I convinced of the truth of this, that I would as soon think of trolling for trout with a dead cat tied to the end of a hayrope, as think of using some of the light summer duns and yellows in March; or the dark browns and duns of that month in June; or of offering the blue dun (so killing in April and May), when the air is swarming with the green drake in the height of summer. We may depend upon it, that no artificial fly, unless it closely resembles the natural insect frequenting the waters at the season fished in, *will ever be successful.*

At the same time it must not be forgotten, that on different rivers in different parts of the country, situated widely apart from each other; or even in the mountain glens, and lowland valleys of the same district,—the tribes of the aquatic insects abroad on the waters will

vary considerably. Insects, more than any other creatures, are immediately influenced by climate and locality, and are specially modified in species, numbers, brilliancy of colouring, etc., and time of appearance, by external circumstances. In certain localities peculiar species may abound, while some of those tribes inhabiting other districts in countless hosts may be entirely wanting. I would not expect to meet with the green drake fly on the cold streams of the mountains, nor the sooty moorland dun fly in our warm and sheltered valleys: while the same species which are common to both will appear probably a month earlier in the latter locality than the former. Moreover, I have frequently observed the natural fly of the same species vary considerably in size and colour on different rivers in different parts of the country: while in some cases, different individuals of the same tribe will be found to differ much among themselves, in regard to size and colour, even in the same locality. For instance, individuals of the yellow sally, and little yellow Mayfly, may be found exhibiting not only great difference in size, but ranging in all shades of colour, from a dirty white or light buff, to a brilliant yellow, on the same day. The general rule is, that those insects which appear earliest in the season, and those which have most recently emerged from the chrysalis state, are generally of a soberer colour than those succeeding them at a later period, or have been longer in the winged state. Under this consideration, the angler should be careful to provide himself with artificial representatives that largely vary

both in size and colour. And I might further remark, that it is sometimes good policy, in visiting a strange river, to call upon one of the professional piscators of the village, generally to be found impersonated in the shape of a barber or cobbler, whose tongue will be readily loosened by the application of a glass of Glenlivet, and from him much necessary information may be gathered regarding the best kind of flies, and the likeliest parts of the river to afford sport.

While each particular tribe of flies has its own peculiar season for appearing on the waters, so in like manner different tribes come abroad only at certain times of the day, when the fish almost immediately leave off taking the earlier ones, for the new comers. In regard to this, trout seem to be guided by an unerring instinct. A short time previous to the advent of the new fly, they will suddenly cease taking the earlier comer, which they may have been greedily devouring all the morning, altogether, and wait apparently in anxious expectation for its successor without stirring a fin, when its appearance is immediately welcomed by the lashing of a hundred tails. Amid the extensive popularity of this new comer, it would be the height of folly for the angler to waste his time in offering any other lure than a well-dressed imitation of the favourite. Should any one be sceptical upon this point, let him attach a dun drake, or any other afternoon fly, on his cast, in the early part of the day, even in the middle of April, when that popular fly is in the height of its season, and see how many fish he will succeed in taking with

it, previous to one o'clock in the afternoon. Or let him continue to fish with the March browns and dark duns, which he found so killing in the forenoon, after the appearance of the dun drake in the afternoon, and see what his success will be:—probably not one fish; or if any, only a few pigmies of half an ounce each. It no doubt appears very strange that the same identical fly, which had so fine a flavour at two o'clock in the afternoon, as to excite the appetite of every fish in the water, and to make every piscine mouth water for a taste of it, should not be equally palatable at ten o'clock in the morning; but no,—this seems not to be in accordance with the ideas of the piscine gout; and like the epicures of a higher class, they not only prefer the proper delicacies at the proper season, but must have a change of diet throughout the day. And after all, there is nothing in reality more singular or absurd in trout preferring to breakfast off March brown, lunch off dark dun, and dine off dun drake (without onion sauce); than for a human gastronome to assign potted lobster and coffee, fried cutlets, and beef, mutton, or venison, to his three corresponding meals, at such seasons as they are best.

As a general rule for the guidance of the fly-fisher in his choice of lures, I would say that he will almost invariably find *that those flies which have last appeared upon the water*, especially a day or two after their first debut, will be in the greatest request by the fish, while the previous favourites will become nearly if not entirely disregarded. The last three flies that have appeared should be used on the cast, and the sportsman who

wishes to fill his creel will do well to act upon the hint, and keep a sharp lookout upon the movements of all the various seasonal flies. The result of his labours at the end of the day will markedly contrast with those of his illiterate brethren, who totally disregard the study of aquatic entomology, and obstinately persist in using flies which have either departed two months before, or will not, in the ordinary course of nature, appear on the the face of the waters for two months to come; merely because they seem to the *eye of the fisher* well-dressed imitations of nature, and marvellously like what they ought to be.

Do then the usual aquatic flies appear in anything like equal numbers in different seasons in a given locality? and are certain tribes of them always to be found on the water, and held in equal estimation by the fish at corresponding times in different seasons?

To this important question I have devoted particular attention, and all my observations tend to satisfy me, that excepting a few regular standards, such as the March brown; dun drake; cow-dung fly; cranes; dark, blue, and yellow duns; red spinners; yellow Mayflies; green and grey drakes; sand-fly, and fœtid brown, which mostly appear pretty regularly on or about their usual periods, the majority of the flies in the angler's list will be found to vary exceedingly, both in their numbers and times of appearance, as well as in their popularity with the fish, in different seasons. While in many tribes, a marked difference may be observed both in size and shade of colour, as well in

different seasons, as on different rivers and localities; and in some tribes—as the yellow sally and little yellow Mayfly, for instance—even between different individuals of the same tribe, on the same day. In one season, or in a particular locality, some tribes may be seen hovering over the pools in countless legions, while, perhaps, for several years previously, they had not been numerous enough to attract observation, or on another river a few miles distant, not one is to be found; and on the contrary, others which had been almost the exclusive favourites in a former season, will seem now to have entirely vanished from the face of the waters, and their artificial representatives, then so killing, are now entirely disregarded. In support of the above opinion, I shall quote some memorandums from my fishing diary made in the years 1857, 1858, and 1859, from observations on the lower portion of the Breamish, a small river running through an open gravelly valley, free from wood of any kind, with the exception of a few willow bushes here and there. And as it may be considered a fair average of the waters in Northumberland, as far as regards climate, I trust the following observations will not be without interest to some of my piscatorial brethren:—

Diary of Flies on Breamish.

"1857, May 16.—While fishing the Breamish this day, I observed the following flies on the water, viz., yellow sally, little yellow Mayfly, little dark dun, grey gnat, large grey crane-fly, and the dung-beetle. The

yellow sally was greedily taken, while the others were but little regarded.

May 23.—The yellow flies have now ceased to be attractive, though yet numerous on the water, while the grey crane and little dark dun are much in request—myriads of the latter being upon the water, and eagerly taken by the fish.

Observe the difference of taste in the fish in the course of a few days only!

May 28.—The hare ear and woodcock has now appeared for the first time, as well as the spider-fly. Crane-flies of different sizes and colours, from a light grey to a dark brown and dun, were this day very abundant and well taken; while the yellow flies, though still numerous, were comparatively neglected.

June 5.—The green drake first appeared this day.

1858, May 12.—The sandfly was all the go during the forenoon of this day, till 12 o'clock; and in the afternoon, the little yellow Mayfly, and the yellow sally.

May 27.—The spider-fly is now on the water, and seems to engross the whole attention of the fish all day long, from early morning till dusk.

June 5.—The alder-fly first appeared to-day.

From the end of June and throughout July, after the disappearance of the May yellows, spider, alder-fly, and drakes, the sandfly was the only one the trout would take, and it continued to do good execution among them.

1859, March 24.—This day I have caught a dozen and a half of trout, mostly good sized ones, in the Breamish. The March brown, dark dun, and early black fly, were

well taken (especially the two former), during the forenoon until eleven o'clock, when what I have named the early orange and dun (a fly I had not observed previous to this) appeared in numbers, and remained until two o'clock in the afternoon, when it again retired. I observed that the trout entirely forsook the March brown during the time this fly remained abroad, but occasionally took the dark dun all the time.

April 5.—The dun drake first appeared to-day, coming on the water about one o'clock in the afternoon. Both the dark dun and March brown were well taken before the appearance of the drake ; but after that, only the latter and the blue dun were in demand.

April 8.—The grannam first appeared on the morning of this day.

June 20.—I observed the green drake, the alder-fly, yellow sally, and oak-fly, or "down-stander," all on the water at the same time in the afternoon. There was no fly-fishing during the month of May this season, on account of the severe drought.

June 23.—High west wind ; water very low ; killed two dozen good trout in the forenoon ; brown and yellow cranes and shorn fly well taken.

As the above observations on the natural flies, made in the course of three seasons, will form a pretty correct index for fishing the Breamish from the 24th of March to the 23d of June, I shall arrange them in a tabular form, for the future guidance of those who may happen to cast their lines in its lively streams.

LIST OF FAVOURITE FLIES ON BREAMISH in 1857, 58, and 59.

Month.	Year.	Forenoon.	Afternoon.
March 24 to April 5.	1859	March brown ; dark dun ; early black, till 11 o'clock.	From 11 o'clock to 2 in the afternoon, March orange and dark dun.
April 5 to 8.	...	March brown ; dark dun.	After 1 o'clock, dun drake ; blue dun.
April 8.	...	Early morning to 8 o'clock, grannam.	Evening, grannam.
May 12	1857	Yellow Sally, to the exclusion of all others.	Same as forenoon.
to 23.	1858	Sandfly.	Little yellow Mayfly ; yellow Sally.
May 23	1857	Large grey crane ; little dark dun.	Large grey crane ; little dark dun.
to 28.	1858	Spider-fly alone.	Spider-fly alone, till dusk.
May 28 to	1857	Hare ear ; spider ; dun crane.	Spider ; grey and brown cranes.
June 5.	1858	Spider all day long.	" "
June 5 to 20	...	Alder-fly ; sandfly.	Green and grey drakes.
20 to July.	...	Sandfly all day long, after disappearance of the yellow drake, etc.	" "
June 20.	1859	Alder-fly ; yellow Sally ; oak-fly.	Green and grey drakes.
... 23.	...	Brown crane ; shorn fly.	Yellow crane ; shorn fly.

The dark duns in March, the drake and blue duns in April, and the light and yellow duns in the beginning of May, are excellent killing flies on Breamish, as also the fœtid brown towards the end of the season.

Weather for Fishing.

In almost all parts of the season, trout invariably rise best to the fly in a brisk warm south-west breeze, sufficient to produce a good curl on the water; which not only seems to excite the appetites of the fish, but also serves to conceal the imperfections of the hooks and tackle. While a merry south-west wind, amounting almost to half a gale, is the very pink of perfection for fly-fishing on all shallow, clear, or still running rivers, an easterly wind, or any wind tending towards that part of the compass, is the very worst that can blow for the angler. During its prevalence trout will lie contumaciously at the bottom, sullen and lethargic, as if they were either very sick, very sulky, or had their mouths securely closed by Chubb's patent locks, and contemptuously refuse even a look at either the most tempting fly or bait that can be offered. In such weather it is quite in vain for any one to go near them, unless it is simply for the sake of exercise. I never in all my experience knew trout inclined to rise at the fly with anything like ordinary eagerness during a north-east wind but on one solitary occasion. But if I had the power, which alone belongs to Omnipotence, of ordering such wind and weather as is best for fly-fishing, I should choose one of those dappled grey mornings, most frequent in the month of April, after a copious shower of rain on the previous night has been just sufficient to create a slight increase of water, but without discolouring it; and with a brisk, warm, south-west

breeze, raising a fine deep blue curl on the face of the pools ; while a few roving blue clouds chase each other across a deep cærulean sky with streaks of cirro-strata across it, and which serve at intervals by their shadows to keep in check the sun, eager to blaze down with dazzling radiance on the smiling landscape. On, then, ye votaries of the streams, with your duns of divers shades, dun drakes, and gravel-flies ; there is sport in store for you ! On such a day the trouts *must die !* and if I am not mistaken, long ere its close, if your lines, directed by ordinary skill, should be fortunate enough to fall on such waters as the Tweed, the Whitadder, the Breamish, the Coquet, or the Glen, your shoulders will ache with the weight of your captives, and you will repose that night without rocking.

Maxims.

Trout-fishing may commence when the frog leaves his winter quarters and begins to spawn in the month of March ; while, by the time the thrush commences his song, the lapwing takes up his abode on the fallows, and the wagtail and the sandpiper visit the pebbly margins of the streams, the season for fly-fishing will have fairly set in.

In March and the early part of the season, the worm must be used in the morning and early part of the day ; and the fly or minnow, according to the state of the water, in the afternoon :—but in cold weather, the worm all day long.

In blustering cold weather, or early and late in the day, the best sport will be had in the still deeps; but in the rapids and streams, if the day is warm and bright, or towards the afternoon.

In the spring months, if the morning is cold, fish seldom bite freely until the day is advanced and becomes warmer. If it is cold all day, they will take best in the warm sheltered parts of the river, where the sun shines upon it, and scarcely at all in the cold shady parts; although in hot sultry weather it is the very reverse.

When there is snow-broth in the rivers, fish never take well, whatever the weather may be otherwise. And if there is hoar-frost in the morning, they will not take till afternoon, and not well then.

From the middle of June to the end of July trout are always difficult to take in all states of the water and weather, being constantly gorged by the superabundance of the larvæ of aquatic insects, which at this season swarm in the waters. Hence indifferent sport may be expected from the end of May to the end of July or August.

Towards the latter end of September and in October, trout run for the spawning grounds in the higher parts of rivers and up the small tributaries, which then literally swarm with fish, while the lower reaches are comparatively deserted. If the angler tries the mountain brooks at this season immediately after a flood, while there is yet water in them, he will have sport to satiety, either with worm or fly.

I have often observed that in September, before trout

commence to spawn, the majority of them leave the streams and deeps and lie mostly on the gravelly shallows by their sides, at which time they take the fly pretty freely.

From Michaelmas to March, in fine weather, all the fish then in season, including occasionally some barren or early spawned trout, that have partly recovered their condition, may be taken at the bottom, in the still deeps, in the warmest part of a mild sunny day, from eleven to two o'clock P.M.

The best time of day for trout-fishing is from nine o'clock in the morning till four in the afternoon, from March to the end of May, and all through September and October. But in June, July, and August, most fish will be caught from dawn till six A.M., and from sunset till dark. In winter a few trout may occasionally be taken in deep still pools during warm mild weather between the hours of eleven and two o'clock.

On ordinary occasions, the waters will be in the best condition for fly-fishing from four to ten days after a flood, before they again become too low and fine, and after the fish have had sufficient time to recover their appetites after their debauch ; as during a flood they invariably over-gorge themselves to such a degree that it is several days before they return to feed ; and during this interval, no sport need be expected, at least none of any moment, however excellent may seem the state of both water and weather.

In the height of summer, when the weather is hot and sultry, and the waters low, it matters little from

what part of the compass the winds may blow, little sport can then be expected under any circumstances, and, indeed, this is the only time when I have seen a cool north wind bring the fish to rise. The angler will then best succeed in the still pools and deeps, when the wind is so rough as to threaten to snap his rod through, and render the keeping of the line upon the water a matter of no small difficulty. Let him secure his "wideawake" from ever and anon being sent skimming along the surface of the water with the velocity of a swallow, and manfully struggle against the buffeting of the gale. He will find, that although it is utterly impossible to retain the flies on the water beyond a second or two at a time, they will be very frequently grabbed at by some unseen gobbler, of whose presence he is totally unaware, until the line spins merrily through his fingers. In such weather, wading up the middle of the stream with a long line out will be an advantage if it is not too deep, and if the angler does not mind interfering with the sport of his neighbours. An excellent basket of fish may be frequently obtained in this way, although the waters be so low that to fish them in calmer weather would be madness.

Other matters that the angler should remember, I shall here note down as they occur to me. In dark, gloomy, or cold weather, use the darkest coloured flies that are then in season, earliest in the day, and even all day long; and in warm bright weather, those of lighter and gaudier hue, towards the afternoon. It is important to attend to this, as all the more hardy insects, as well as those that appear both earliest in the day and earliest

in the season, are for the most part of a dark sober hue; while, on the contrary, those of light and gay colours, and which are more delicate in constitution, come forth only after the season has considerably advanced, and then only towards noon, in the warmest period of the day; and in lowering cold days, not at all. In rough deep waters, a comparatively large and burly dressed fly should be used; but in clear small streams it is indispensably necessary that the flies should be small, and the whole of the lines of the very finest description possible.

In a cloudy day after a mild rain, trout will take the worm, minnow, or fly, according to the season and state of the water: the worm, when the river is increasing or muddy; the minnow when the flood is subsiding and the water of a brown colour; and the fly when it has nearly returned to its ordinary condition. But the clouds must not be of a white and fleecy character, which portends more rain or thunder, but blue and roving-like.

It is said (but I can't assert it) that cloudy days following moonlight nights are most favourable to the angler, as the fish do not feed so plentifully during moonlight as on dark nights; while, on the other hand, in days succeeding dark windy nights, the large fish will not bite, as they range and glut themselves during the whole of such nights. A river in which sheep have been washed is useless for several days after, until the fish recover from the sickening effects of the filth taken from the wool.

At the confluence of rivers that ebb and flow with the tide, it is best to angle at the ebb, as fish will rarely bite either at high-water or during flood, excepting *flounders*.

In a sultry warm breeze keep the flies playing upon the surface as much as possible, and occasionally dangling in the wind for a second or two at a time; but in a bleak cold day, most trout will be taken by allowing them to sink three or four inches beneath the surface of the water. In such weather fish prefer dining under cover, not caring to expose themselves to an attack of influenza.

In deep still waters, large trout may be taken all night long, with the large moth-flies.

When the trout suddenly cease taking in any particular spot, without any apparent cause, from an approaching thunder-storm, etc., it is likely some pike, large perch, or other predaceous fish, has made his appearance; when the angler may fit up a set of proper tackle baited with a small trout, and dispose of the intruder; or a trimmer ready fitted up, may be carried for such a contingency.

In unfavourable weather for fishing, when the trout are careless about the fly, and indisposed to feed, they seem only to rise either for sport or exercise, when not one in ten will ever lay hold of the fly, and those that deign to do so just seize it by the tip of the wing in play, and relinquish it in contempt, thus tantalizing the sportsman with numberless rises, and keeping him the whole time on the tip-toe of expectation

only to be disappointed. I have seen trout behave in a similar manner when the flies used were either improper for the season or badly executed representatives of the natural insect.

I once witnessed for some time the operations of a student of the "rule-o'-thumb" school, who maintain that a certain fly that will kill well on one occasion, will be an equal favourite at any other time, whip the water for more than a couple of miles on a fine roving gloomy day (just made on purpose for sport) in the month of May, with brown and dark duns, which he had found efficient in March, without creeling more than half-a-dozen troutlets, little larger than full-grown minnows, although he probably had a whole gross of rises. As there was such a rough curl on the water that the trout could scarcely distinguish one fly from another, until they came into close proximity to them, they consequently rose at his cast; but almost every one that did so, immediately wheeled short round, on discovering that the fly offered had either left the water a couple of months previously, or otherwise was some fanciful creation of the human imagination. Had he used the proper flies for the season, properly dressed, on such an auspicious day, he might probably have done, what I did on the same occasion,—speedily filled his pannier.

Small Flies.

I have often been surprised at the singularly methodical manner in which trout feed at certain seasons:

only rising at regular intervals for a quarter of an hour at a time, when the whole surface of the water seems alive; then as suddenly cease for about half an hour, as if to digest their lunch before another onslaught is made. This is most observable on rivers which produce large quantities of the different tribes of ephemeræ, besides the ordinary aquatic flies, and will only take place at those seasons when they come forth in the winged state; and as it is the habit of these insects to issue from the larvæ state in whole myriads at once, like a swarm of bees, when they take wing, hover over the surface of the water for a few minutes in order to deposit their eggs, then finally disappear. The whole period of their winged existence (given apparently, merely to enable them to perpetuate the species) seldom exceeds a couple of hours, and in certain tribes only a few minutes; while the utmost limit to which the existence of the longest-lived of the species is prolonged, does not exceed a couple of days. Now the cause of the fish rising only at intervals, is the successive flights of the above coming on the water,—tribe after tribe; when the former gorge themselves as quickly as they can during the time the flight lasts, and immediately retire to wait for another. As the trout are exceedingly partial to these minute insects, which in most cases are little larger than midges, they will seldom look at any other fly the angler can offer. At this time he may make up his mind to bear the tantalizing prospect of fish rising at every part of the water except the particular spot upon which his own flies rest, with as much

dignified resignation as he can command. It will only be a half-muddled stray one, that he will occasionally succeed in hooking by mistake; and in the intervals when the "feed" goes off the water, he may stretch himself comfortably on the grass and enjoy his forty winks; for he will fill his creel quite as well in this manner, as by thrashing the water. In fact, unless he be in want of fresh air and exercise, it is his best plan to bundle off home at once; as the different tribes of ephemeræ are so numerous and minute that it simply is impossible to imitate them properly. And even should an ingenious sportsman attempt to convert his fly-book into a magazine of midges, the labour would be endless; for should he be even patient and dexterous enough to produce an accurate representative of a tribe which was swarming in myriads at three in the afternoon, he would find them totally useless at four; when they would again be replaced by another species, as opposite in hue as light is from darkness. But if he is nevertheless *determined* to presevere, his best plan will be to try on, with the standard natural flies proper for the season, or a well-dressed showy midge, and trust to chance for success. It is, however, only on those rivers where the soil is rich and the banks clothed with wood and bushes, and the climate mild, that the ephemeræ are produced in such numbers as to occasion the above annoyance; while in cold exposed waters, such behaviour on the part of the trout is seldom witnessed.

CHAPTER V.

CASTING.

How to cast—How to manœuvre the Flies—Willowing a Fly—The Underhand Line—How to strike a Fish—How to play and land a Large Trout—How to fish a River.

GREAT nicety and care are required in the formation of a good fly-cast. If it is not regularly tapered, and regulated in weight from the end of the reel-line down to the tail-fly, it never can be smoothly and nicely laid upon the water. In order to effect this, a few thick round links of gut should be selected for the upper part of the line, and successive finer lengths attached in regular gradation to the end. The finer the material (provided it be composed of sound round gut), the greater will be the chances of sport, especially in small clear waters. To this end, all the knots which join the different lengths together, as well as the attachments of the drop-flies, must be equally neat and unobtrusive. I have seen a line put together by a clumsy-fisted fellow, with the knots protruding like wren's eggs, and loops attaching the droppers which a child twelve months old might stop its head through. "Verily, he would have his reward," when he came to use it!

A very neat method of joining gut-links together is

shown in the annexed cut, where a single hitch-knot is cast upon each end of the adjoining links, which, when drawn tight, forms a small and secure knot if the ends are not cut off too close; and when it is required to attach a drop-fly to any portion of the line, it is only necessary to cast a single knot upon the end of the gut to which it is whipped, then drawing back the knots of the line from each other as shown in the cut above, insert the knotted end of the dropper through the loop thus opened between the links of the line, and draw the whole tight together. The knot of the dropper will then be securely fixed between those of the line. One great advantage attending this method, besides its neatness, is the facility with which the drop-flies can be changed at pleasure, without the clumsy interposition of loops or other encumbrances.

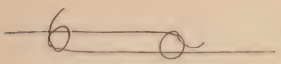

Fig. 14. FISHER'S KNOT.

Fig. 15. HOW TO ATTACH A DROP-FLY.

It is customary for some sportsmen to fit up two or three different casts of what they consider likely flies, before they leave home; and when they find one cast does not answer their expectation, detach the whole set and put on another. But by the plan referred to it is only necessary to change such flies as are thought proper in the manner described, and never the line itself, unless it

meets with an accident; and which can be done with infinitely less trouble and much greater despatch than would be required to remove and replace the entire cast itself.

The gut *fly-line* ought to be about four yards in length, to the extremity of which the largest and most likely fly should be attached, as in nine cases out of ten the tail-fly or stretcher will be found to do most execution, if not out of season. Thirty-eight or forty inches above that, fix the second dropper, suspended to three inches of gut; and thirty-six inches above that, the first dropper, whipped to four inches of gut; and observe that all the flies are so arranged that the largest and heaviest are nearest the extremity of the cast, and that they gradually diminish in weight and size, from the tail-fly to the first dropper next the rod. If the case were to be reversed, as we often see with the uninitiated, and the uppermost fly made the heaviest in the cast, that portion of the line would arrive at its destination first, dog-leg fashion, and cause the remainder to splash into the water in a confused heap, to the utter dismay of every fish in the vicinity.

Some sportsmen use four or even five flies upon the line at once; but this practice I condemn, as the line is rendered so heavy that it is impossible to cast it with the requisite lightness and precision, unless the wind is very strong indeed, or the whole of the flies as minute as midges; while in either case they are incessantly getting entangled with each other, and create too much disturbance where they alight. We can certainly offer

a greater variety to choose from by using four or five flies in place of three; but I will venture to predict that the latter number will kill the greatest quantity of fish. Besides, what can be more likely to arouse the suspicions of an acute trout than a long formal procession of variegated insects sailing complacently down stream in Indian file, and ranked up with as much precision as a squadron of ships of the line going into action? I am not sure but that if only a single popular fly were to be used upon a small river, it would not be found to be more successful than any greater number.

A constant practice of my own, which I would enjoin others to adopt for their own comfort and convenience, is to steep the gut-line they intend using for the day in water for a quarter of an hour or so, before they leave home, then wind it tightly round the hat in order to divest it of curls. A piece of india-rubber passed a few times over the gut will also effect the same result. No fish will ever attempt to rise until the line is straight, smooth, and as entirely free from crumples as a gossamer spider's thread.

It is of the utmost importance, in the first place, to be able to cast a long line with lightness and precision over any particular spot; and, in the second place, that the flies should alight upon the surface of the water with the lightness of the natural insect: the end fly being first, the first dropper next, and the second or upper dropper last. Scarcely any part of the line, excepting that portion of the gut to which the flies are attached, should ever touch the water. This requires a consider-

able degree of dexterity, and a vast deal of practice; but he who approaches nearest to perfection in this art will be the best fisher. Another point of the greatest importance, is to be most careful to keep the corporeal structure concealed from view; as all fish, excepting the shark tribe, regard the appearance of man, whatever be the cut of his garb, with unmitigated horror and distrust; and however complacently the dandified disciple of Walton may regard his own reflection in the watery mirror, and whatever amount of bear's grease and Macassar he may have consumed in his toilet, let him rest assured that the fish will dart off at the first peep of his phiz, as from the presence of an ogre.

I would recommend the beginner to commence fly-casting with the assistance of a moderate breeze from behind, blowing across and rather obliquely down the stream, on his left cheek, when he must proceed thus: With a line about twice the length of the rod (as none can make a fine cast with a short line, which obeys too much the spring of the rod, like a whip), raise its point so that the wind may carry the line out to its full extent, and move it by a rather quick motion of the right arm and wrist down wind, until it is opposite the right side (supposing, as I have said, that the wind is blowing on the left cheek, as the angler faces the river); but, on the other hand, only as far as opposite to his left breast, if the wind is blowing on his right cheek; remembering that, at the same time, the rod must be lowered into a nearly horizontal position during the sweep from right to left, or vice versa. On the arrival of the rod straight opposite either side, as the

case may be, its point must be thrown sharply upwards and backwards over the shoulder with a peculiar jerk of the wrist and forearm, which will cause the line to sweep out to its full extent behind the back of the operator, when he must wait for a second or so to allow the line to attain to its full extent before he attempts to cast it forward again (otherwise the end fly will most assuredly be cracked off like the explosion of a small rocket); then by a forward movement of the forearm, accompanied by a rather forcible jerk of the wrist, it must be cast forward and against the wind straight across the water; at the same time, the rod must be again lowered into a horizontal position without removing the butt from its place, until the line has again attained its full stretch in a forward direction, and before it reaches the water. Just at this instant, when the line has attained its full extent, and the flies remain suspended for a moment immediately over the spot where they are intended to alight, gently elevate both the arm and the rod (but still maintaining it at the same angle with the water), as high as possible; which manœuvre will cause the flies to rest on the wind for a second or two, and arrest their too rapid descent upon the water. The flies, by their superior gravity, will, during this rest, naturally assume a position nearest the surface of the water, when both arm and rod, with the tip of the latter still elevated, must be gently lowered, and the flies allowed to dangle for a second or two just above the surface, then delicately eased down upon the water. If there is a moderate breeze, and the cast is managed with ordinary dexterity according to the above

directions, the angler will find that if the line is kept suspended high enough and long enough to permit the flies to assume their natural position beneath the other portions of the line, by reason of their greater weight, the end fly, which ought always to be the largest and heaviest on the cast, will drop into the water first, and then the droppers in succession, in the most delicate and natural manner possible; while scarcely any other portion of the line than that to which they are immediately attached need ever touch the water at all. With a good breeze, and the fish in a taking humour, the angler will have no lack of sport, if he manœuvres his tackle according to the above directions; and if he allow a popular seasonal fly thus to dangle in the wind over the surface of the water, he will find it in nine cases out of ten to be taken the instant it reaches the surface, and in many cases it will be met half-way, if there is a trout in the vicinity. I do not consider any one entitled to the designation of an accomplished fly-fisher unless he is able to cast his line over the branch of a tree without entangling it, or drop his tail fly into a soup-plate at a distance of twenty-five yards, with the assistance of a favourable breeze blowing in the right direction.

I should recommend a beginner to commence at the top of a stream or pool, if the direction of the wind will allow him; to stand as far from the water's edge as he conveniently can; and to throw as long a line as the strength of the wind and his own dexterity will permit: for *to fish fine, and far off*, is one of the golden rules of

fly-fishing. Then let him cast, in the manner directed, straight across the stream, and endeavour to let the tail-fly reach as near to the opposite bank as possible, where the majority of the fish in the water will be congregated, waiting for the insects which the wind always drives to the lee-side. After the flies alight, be careful to prevent any other portion of the line except the fly-links from disturbing the water, and keep steadily and gradually elevating the rod, and drawing the flies gently across the stream, at the same time that they are allowed to be swept round in a semicircle by the current, until they fairly reach the edge of the water. Then, withdrawing them with as little disturbance as possible, step a yard or so farther down, and make a fresh cast in the same manner as before. By thus making a cast at every yard down stream, the entire surface of the pool will be swept in succession, and every fish in it inclined to rise will have had an offer. The rod must also be held high enough, and the flies drawn through the water sufficiently quick to prevent them from sinking deeper than a quarter of an inch or so beneath the surface; while the upper dropper should be made to dangle and play upon the top of the water, just skimming the surface, as nearly as possible after the manner of the particular fly it is intended to imitate.

During the progress of the flies across the water, various little dodges and manœuvres may be adopted to cause them to represent a living insect—such as quivering the rod, bobbing the droppers up and down and from side to side, drawing them along by jerks, etc., and other devices.

But the motions communicated to the flies ought always to correspond with those of the insects represented. Thus, if it is a dun, green, or gray drake, it will flutter for a short distance close along the surface before alighting, then, after sailing quietly down with the current for a few yards, again take wing, flutter a few yards farther, and alight a second time. The duns generally sail quietly down with the stream, but the yellows and red spinners keep for the most part dancing on the wing, backwards and forwards, and from side to side, just upon the surface; hence the motions of the former will be best imitated by allowing them to be quietly swept round by the current, care being taken only to prevent them from sinking too deep; while the motions of the latter may be best counterfeited by dangling the droppers about from side to side, as they barely touch the surface of the water. The intelligent sportsman will no doubt find it a highly interesting task to study the peculiar habits and motions of the different aquatic flies, and the imitating of their movements a pleasing opportunity for the exercise of his ingenuity.

If there are any grass-butts or large stones in the middle of the stream, or overhanging banks on the opposite side, likely to harbour large trout, the tail fly may be dexterously thrown on to them, so that a gentle shake of the line may cause it to roll off and fall into the water in the most natural manner. This is a deadly cast. Some adepts even do not hesitate, under favourable circumstances, to pitch their flies upon the boughs of a tree or bush on the opposite side of the river, and then shake

them off in the manner described ; this is called " willowing a fly," but it is rather a dangerous operation for a novice, as he will be very apt to entangle his line, and either be compelled to wade perhaps up to the neck for its rescue, or sacrifice it altogether. During a moderately high and favourable wind, when trout generally take most freely in all small clear waters, the whole process of fly-fishing becomes, comparatively speaking, a very simple affair indeed ; as all the angler has to do in this case, is to keep his rod elevated in the desired direction across the stream, when the wind itself will carry out the flies to the wished-for spot, without any effort at casting on his part, or at least a very trifling one, while at the same time it will give the flies all the play they need upon the water. Whoever follows his flies leisurely down the stream in this way, and allows them to dangle on the surface by the motion of the wind, will take a large creel of trout even in a small river.

It is only to the clumsy angler that annoying accidents and misadventures are perpetually happening ; and I have no doubt that the mere water-whipping fraternity often break, lose, and destroy, more gut and flies in a single day (if the rod itself escape), than a master of the art will consume during a whole season. In nine cases out of ten, a fouled line is only more inextricably entangled by the ill-directed efforts of its flurried owner, when it might be easily relieved by a little attention to the following method. It will also spare the angler the unpleasant alternative of sitting upon the banks for half hours together, cobbling lines, while his more fortunate

or more skilful companions are filling their baskets with fish. Whenever the line appears in danger of getting fouled, by no means hastily attempt to pull it away, as most people do, otherwise you will most assuredly firmly fix the hooks in the offending object, if they were not so before ; but coolly and deliberately toss more of the slack line towards the impediment, and then give it a gentle shake, when it will in most cases float off in the wind. If, however, the hooks are fixed in it, then there is no other alternative (in the absence of a clearing-ring) than to wade in for it, or by applying a steady strain upon it, to break the line as near to the extremity as possible.

When the banks are encumbered with trees or bushes, the line must be cast as what is called "an under-hand line," so as to tuck the flies underneath the overhanging boughs, places most frequented by large trout in all rivers. In order to do this, the fisher should proceed as follows:—After having brought both rod and line parallel with either the right or left side, according to the direction of the wind, and on the latter attaining its full stretch, lower the tip of the rod into a horizontal position, and with a quick jerk of the wrist cast the line horizontally across and up the stream, and obliquely against the wind if possible, when the flies will glide smoothly and neatly in a side-long direction under the impediments, and alight quietly on the water, when they will most likely be at once taken if a trout be there.

I should also observe here, that in the casting of the fly-line, much more depends upon a peculiar action of

the wrist than that of the arm, and that the latter should only play a secondary part in the operation, and its movements above the elbow be as limited as possible. And again, allow me to warn the tyro, that his flies should never on any account be dragged straight through the water, either across or up stream, as I have occasionally seen done, following each other like a procession of corporation barges on the Thames, and leaving nearly as conspicuous a wake behind them. On the contrary, they must be allowed to perform a sort of semicircle obliquely across the river, when each fly on the cast will independently sweep its own particular portion of water, and be offered in succession to the notice of the fish as they pass, without making a sensible ripple upon the surface.

Striking.

When the fish has taken the hook into its mouth, it is necessary for the angler to fix it there by tightening the line, or, as it is called, *striking*. To do this with quickness and gentleness at the same time, both coolness and practice are required, as the beginner who first makes the experiment will find, after he has probably smashed his rod half a dozen times, broken scores of lines, and lost no end of fish.

Some people with peculiarly excitable nerves never can perfectly overcome the effect of having their equilibrium upset, and of being thrown into such a flurry, that all rational caution and presence of mind vanish

the instant that the tail of a trout breaks the water. It is indeed difficult to make such people proficients in fly-fishing, by any process of instruction. They very probably know well how they ought to proceed, but for the life of them cannot divest themselves of this absurd nervous trepidation, whenever they observe the shadow of a fish approaching their flies; and it will be as utterly impossible for any sportsman suffering from this infirmity to land safely anything above nine inches in length, as it would be for a locomotive to drag a train by a packthread. Unless a sportsman is perfectly cool and collected, and has all his wits about him, ready to meet and circumvent all the manœuvres and dodges practised by a large fish when hooked and under play, the chance of his being able to creel him will be slight indeed. When a fish is once securely hooked, the more coolly and deliberately he is played, and the longer the time given him to exhaust himself, the more certain will be the success of the issue. No fish beyond a quarter of a pound can be unceremoniously hauled ashore, *nolens volens*—supposing that the line and tackle are sufficiently strong to do so—without extreme danger of the hold on his jaws giving way; and in nineteen cases out of twenty, when a large fish that is once fairly hooked succeeds in escaping, it is from the mischievous precipitation and over-anxious haste of his captor to lay hands upon him prematurely.

The moment a trout is observed to rise, the hook ought to be instantly struck into his jaws, by a quick, decided, but at the same time gentle upward jerk of the wrist:

but in this operation the wrist alone must be concerned, and the remainder of the arm must have nothing whatever to do with the matter.

It will require a good deal of practice and self-possession to be able to do this at all times neatly, quickly, and efficiently, with the requisite degree of gentleness and caution. Out of the numerous pretenders to piscatorial accomplishments, how few do we meet with, who have been able fairly to master this elementary lesson, and can perform this simple operation in a thoroughly artistic manner! Even many old and otherwise moderately respectable practitioners make a sad bungle of it, and toss every trout they lay hold of high over their heads, as if the fate of empires, nay life and death itself, depended upon the celerity with which they transfer a poor luckless pigmy of two ounces from the waters to *terra firma*. If the fish, by a fortunate chance, happens to be under quarter of a pound, all will be well, and the astonished denizen of the crystal stream will find himself transferred, with the velocity of a rifle-bullet, into the luxuriant verdure of a grass meadow, there to ruminate on the suddenness and the strangeness of his change; but should he be something above that weight, then, in all probability, smash goes the rod—whiff goes the line—and away goes the fish, leaving the excitable sportsman standing aghast, with eyes somewhat near the size of breakfast saucers. Some few again, whose blood circulates at a slow pace—not according to the railway speed of the present day, but after the old stage-coach fashion of former times—err in the opposite extreme, and are so tardy in striking, as to allow

the fish time to discover that the indigestible mass of case-hardened steel, fur, and feathers, he holds in his jaws is not exactly the thing he took it for. He spits it out, and with virtuous indignation at the barefaced attempt to impose upon his credulity, turns leisurely away. And the only victims this slow-paced sportsman will succeed in capturing, will be such as unwittingly contrive to hook themselves by the tail.

Now each of those extremes must be studiously avoided; and while the hook is fixed, the moment the fish has fairly turned with it in his mouth, by a quick and decided jerk of the wrist alone, the stroke must be given with such moderation, as neither to place rod, line, nor hold, in jeopardy. I have been an indefatigable votary of the angle, now for upwards of a quarter of a century, and have during that time captured many and various-sized fish of various species, in all conceivable positions, and under various circumstances, and never once in my whole sporting career recollect of fracturing either rod or line by handling a fish too impetuously; while I have had many gut-lines that, with occasional repairs, have lasted for two and even three seasons in succession.

The disturbance of the water occasioned by a fish rising at the fly, is always produced by the motion of its tail on turning round to descend again towards the bottom. The angler therefore must recollect that the fish has already either refused to take, or has firmly closed his jaws upon the fly, before the said splash is made, and that consequently the sooner the barb of the

hook is fixed into him the better, as there will be less time given for second thoughts.

I have invariably remarked, that whenever a large trout is slightly or only superficially hooked, he very generally commences to flounder about on the surface of the water, like a miniature whale in his death-flurry; while, on the other hand, when the hook is deeply and securely fixed, he descends at once to the bottom, and endeavours to dislodge it by rubbing about among the gravel and stones. The latter behaviour is generally an unmistakable sign that he is deeply and securely struck, and with ordinary skill and coolness, barring accidents, he will be safely brought to bank. On other occasions I have seen a game trout, when first struck, rush slick across the river, and perform half a dozen pirouettes high in air, like a fresh-run salmon, the instant he felt the hook in his jaws, previous to descending to the bottom; and in this case, the risk of his breaking either line or hold, during these saltatory evolutions, is of course much greater, more taxing to the skill of the sportsman, and of course the run becomes correspondingly interesting.

Landing.

As I hope the above instructions will enable the tyro to hook his fish, I must supplement by telling him how he may get it landed. And perhaps I cannot better illustrate the proper tactics to follow, than by giving the following description of a spirited contest between a friend of mine and a large trout, hooked with

minnow in the Breamish, and of which I was a witness.

After giving a few lusty shakes, to feel what was the matter, Mr. Trout turned sharp round and shot off like an arrow to the far side of the pool, birling out some twenty or thirty yards of line; when, not at all relishing the sturdy efforts of the minnow, seemingly endowed with supernatural strength and vindictiveness, to convey him, *nolens volens*, ashore, he next bounded three times high into the air, apparently in as unamiable a humour as a pig fast in a gate, with the design, no doubt, of shaking off his pertinacious little enemy. My friend, being an old veteran, knew well how to play a heavy fish when struck, and kept his rod well elevated upon the bend, so as to maintain a constant steady pull upon him, being well aware that the elasticity of the rod and line combined would soon bring Mr. Trout to a more submissive mood. The most critical part of the business was to prevent him from snapping the line with his tail, during those determined saltatory plunges he made, evidently with that intention. But this his antagonist cleverly defeated by judiciously slacking his line at each bound, and immediately resuming the pressure the moment he again fell into the water. This is at all times a dangerous manœuvre on the part of a fish. If the pressure of the rod is continued, and the line remains strict, it is very apt to be snapped in two by a flounce of the tail; while, if the line is promptly slackened, as it is best to do, there is considerable risk of the hook being shaken from its hold, during the short time the spring of the rod is re-

moved. My own plan, under such circumstances, is still to maintain a very slight strain on the line during the upward spring of the fish, and relax it gradually as he descends towards the water; therefore, I never for a moment suffer the line to become entirely slack, and thus guard against the hook being thrown out of its hold; while the line is sufficiently eased to prevent its snapping, should the fish happen to strike it with his tail, or fall across it on his return to the water.

Finding my friend's tactics too many for him at this game, his next dodge was to descend to the bottom of the water, and endeavour to rub out the obnoxious barbs against the stones and gravel in the bed of the stream; but the stubborn elasticity of his enemy's rod again put its veto upon the success of this movement. He now commenced prancing round in circles, cutting 8-figures, dancing down the middle and up again, and going through other eccentric figures in this exciting contra-dance; till, after a determined contest of nearly a quarter of an hour between fish and fisher, during all of which my friend manœuvred with the most consummate skill, the sturdy finster was at length obliged to succumb to the superior generalship of his antagonist; and finally, laying his beautiful star-spangled side and quivering fins broadside on the surface, was triumphantly hauled ashore upon the shelving gravel; when, reeling up the line to less than the length of the rod, my friend was enabled with safety to stoop and grasp his victim with the left hand, without relaxing the spring of the rod, which was still upon the bend, and elevated above

his head, by the right, all the time. The captive proved to be a fine fellow of a pound and a quarter weight.

If a trout is too large to be lifted at once out of the water, *sans ceremonie*, and the river is bounded by steep banks (and that important functionary Jones, and his landing-net, are not in attendance) the only plan is to lead him as quietly as possible to the nearest bed of sand or gravel, and there drag him ashore ; as it is extremely hazardous to attempt to lay hold of a fish in deep water or against a bank-side, and in six cases out of seven, he will escape if the attempt is made. Alas ! how many fish are continually lost just at the moment of transference from the water to the creel, through the hurry and precipitancy of the nervous and over-anxious angler to land them by main force, before they are half exhausted and ready for such an attempt. I would here strongly urge the necessity of exercising the most deliberate coolness and self-possession, in a contest with a large fish ; as all nervous haste to bring him to land before he is thoroughly exhausted and capitulates, will only end in the escape of the fish, and the return of the line bootless to the feet of its disappointed owner. On the other hand, a fish that is securely hooked, if it is properly manœuvred, has little chance of escape, unless it is in the immediate vicinity of bushes, rocks, and other obstructions ; for however long and furious his opposition may be, we know that the more desperately he struggles against the rod, the sooner will his physical powers be exhausted and the contest terminated. Give me fair water, and no favour, and I will bet ten to one against

the fish. Again, if the fish is only but slightly hooked at first, it is very evident that the more tenderly we deal with him, the better will be the chance of the hold being retained; and that a single impatient or impetuous tug will instantly break it away, and grant him a release, when our friend (the trout) *profugit, cachinus parium succedens.*

Where to Fish.

I will now say a few words about the best method of fishing a river, supposing the angler is a stranger to it, and that his operations are somewhat obstructed by the unwelcome presence of a host of other competitors for the honours of the day.

An esteemed and valued friend of mine, and a first-class angler, says, in his description of the tributaries of the Tweed recently published in the *Field:* "Perseverance does much, and by keeping the hook continually in the water, whether in angling for salmon or trout, the chance of getting a rise is much in the angler's favour." Now this is worthy of every attention, as it is unnecessary to point out a fact which is self-evident, that it is impossible for any angler to catch fish, while he is wandering along the banks of the stream with the flies in his hand, or his line floating in the wind; while, on the other hand, it is equally an unprofitable waste of time, to keep pottering and thrashing a pool a dozen times over, when the fish in it stubbornly refuse to rise. Every experienced fisher is acquainted with the fact, that while "the feed" is completely off one stream or

pool, so that not a fish will stir in it, it may happen that the tenants of the next are all on the *qui vive*, and rise almost at every cast. Now the best plan is to follow a medium course ; to fish every inch of water where it is possible for a trout to lie, as they will frequently be found in parts of the water where least expected ; and should there happen to be a slight fresh in the river, the fish will be found to be generally diffused over it, though mostly in rapids, eddies, and shallows. But by no means dally over water where there either are no fish, or where they will not rise. The angler must try every possible part of a river step by step, where there is any likelihood of there being fish ; and he will soon find out at what particular part of the pool they are lying. There he must continue casting as long as he gets rises ; and even when they cease doing so, he had better light his meerschaum, give them a few minutes' rest, and recommence at the top of the stream (as trout frequently shift their position within a short time), and go over the whole again. I have taken on one occasion thirty-six trout out of one stream in the Coquet near to Holystone ; on a second, twenty-three in the same water; and again, twenty-four out of the Breamish, in the above manner, which I would probably not have got, had I contented myself with merely fishing it once over, and then running off in search of fresh water, as many do. It is evident then, that the sportsman who merely makes a few casts here and there into the most likely-looking pools—it may be at the top of the stream, while the fish are all quietly lying at their ease near its foot—and on not meeting with

a rise, impatiently hoists his rod over his shoulder, and stalks indignantly off in search of more favourable casts, will be fruitlessly spending his time in tramping the banks, while the industrious sportsman who adopts my friend's maxim is filling his creel. The same plan will hold good in all other kinds of fishing, as well as the fly. It is also a needless waste of time to attempt to get before any other sportsman who may chance to have possession of the water, however great an advantage the first rod may have over all that follow ; for as soon as he perceives an attempt made to pass him, he will at once hoist the rod over his shoulder and play the same game. Hence, if both the competitors are of an obstinate disposition, the affair will eventually resolve itself into a pedestrian contest, instead of a day's fishing. The best plan then for the angler to adopt is to quietly light his pipe, and console himself with the fragrance of the weed for half an hour or so, until the fish regain their equanimity.

In comparatively still and well-fed waters, where the trout are surfeited to repletion with a superabundance of insect food, their tastes are singularly capricious and whimsical, and like all gourmands already over-gorged, they will often disdainfully refuse the more substantial flies, be they ever so correctly dressed, and only rise, apparently, more for the sake of sport than for the purpose of feeding. I have frequently observed them, on such occasions, rise freely at the knots in the casting-line, and entirely disregard the most taking flies attached to it. In such cases as this, which happens generally in

the droughts of summer, when the waters are fine, and all kind of insect food cry "Rise and eat" (like the porkers of St. Salvador, which are said to perambulate the streets with knives and forks ready stuck in their backs), small flies will generally do more execution than large ones. But in rough streamy rivers, where there is only a moderate supply of insect delicacies, the fish evidently prefer more substantial fare, as here it is a dinner and not a dessert they are in quest of; and the representatives of the larger flies, of the full natural size, will be most in request. In such waters, a large trout will not be at the trouble to put his ponderous carcase in motion to capture a nonentity.

CHAPTER VI.

DIPPING OR NATURAL FLY-FISHING.

Dipping—Rod for—Weather and Water for—Dipping-Baits—Green and Grey Drake Flies—Stone-Fly—Blue-Bottle—House-Fly—Wood-Fly—Grasshoppers—Beetles—Method of Dipping—Fishing with the Natural Fly in Open Water.

DIPPING with the natural fly is a method of fishing well adapted to the droughts of summer, when the waters are fine and low, and when the majority of the trout have retired from the streams and shallows to the deep and shady pools, where they can lie in quietness and security, screened from the fierce rays of the sun. And it can only be successfully practised in a dead calm and on such waters as are fringed by overhanging trees and bushes, which not only form a harbour for the fish, but also serve to conceal the dipper from observation during his operations.

It will be found not only a very quiet and agreeable method of sporting beneath the cool and refreshing shadow of some tangled wood—maybe the favourite retreat of some beauteous nymphs during the broiling heats of a tropical day—but also a very successful plan for procuring a dish of fish, when all other efforts are futile. And thus the enthusiastic sportsman may enjoy a few pleasant hours' diversion, in place of sipping cider

and smoking himself into a red herring to avoid the effects of ennui.

The rod used for *dipping* ought to be long—not less than sixteen or eighteen feet, and in fact the longer it is the better, provided it can be conveniently managed. A common salmon-rod will answer the purpose well. The line, which must be of the finest but very stoutest gut, may be about three feet shorter than the rod ; and the hooks must have their shanks shortened, and be of proportionate size to that of the fly used as bait.

The insects used as live baits for dipping are the following :—

The green and *grey drakes* form excellent dipping-baits when they can be procured ; but in most cases this is rather a difficult matter, and the capture of the baits will often involve more trouble than catching the fish, unless the sportsman is young, nimble, and fond of pedestrian exercise. They may occasionally be found in numbers among the long grass by the river-side towards the height of the day, or be taken when on the wing in the afternoon, by means of a small gauze net fixed into the upper ferrule of a fishing-rod, and may be preserved for any reasonable length of time, in a roomy box of wood or pasteboard, bored full of holes.

To apply these baits to the hook, which must be a fine small fly one, simply pass it crosswise through the thorax of the fly ; and if a couple are used at a time (but one is best), place them upon the hook in the same manner, heads to tails.

The stone-fly is a large tough bait, and may be

found under stones and rough gravel by the margin of brooks and rivers during the height of the day, when they retire to repose. They are either to be attached to the hook in a similar manner to the above, or otherwise drawn longitudinally over the shank, but the former is the best method.

The blue-bottle, and *large house-fly*, are also excellent dipping-baits. We leave the former wide-awake gentlemen to be obtained by the ingenuity and activity of the angling enthusiast, who is willing to devote his time and energies to their capture, and will consider him fortunate, if he succeed in bagging one in twenty-four hours. The latter, however, may be easily obtained in any numbers, by exposing on the walls of the kitchen sheets of old newspapers smeared with yellow resin dissolved by heat in rape or linseed oil; and which, if they are numerous, will presently present the appearance of a rich currant cake. If a blue-bottle is used, slip a very small hook through the thorax, in the same way as the others: and if the house-fly, one may be slipped over the shank, and another attached by the thorax.

The wood-fly closely resembles the blue-bottle in appearance, and is one of two species—the one darkish grey, the other black. These flies may easily be captured by placing a piece of liver, or what is better, any offensive carrion, in a convenient part of a wood or thicket; when swarms of them will be seen to cover it in a few minutes, coming from all directions, apparently attracted by the smell. When a sufficient number have settled, quickly cover them with a gauze net stretched

over a hoop, and transfer them from under it as adroitly as possible, one by one, into a horn bunged at the large end with wood, and perforated with a few small air-holes. The small end should be closed with a cork, which, when raised slightly and with due caution, will allow a single fly to come forth at a time, as they are all anxious to escape from their prison, and will readily creep out of their own accord, whenever the cork is withdrawn. If a box be used, instead of a receptacle of the above description, the whole fleet of these lively gentry will unceremoniously go off, like a whiff of smoke, the moment the lid is raised.

Grasshoppers form also excellent natural baits, and may either be dipped with on the surface, or sunk to mid-water, by placing a shot pellet of sufficient weight eight or ten inches above the hook ;—when they will be greedily taken.

Grasshoppers may be met with on any dry grassy bank facing the sun, between the months of June and September. The middle-sized and greenest ones are the best. They may be carried in a wooden box, wide at the bottom, and narrow at the top, with a sliding lid ; by withdrawing which a little, so as to admit the light, they will readily creep out, one at a time. In baiting with these, the hook must be stuck transversely across the middle of the thorax ; or be entered under the head, and lodged in the body. They may also be preserved for any length of time in the bark case recommended for caddies.

Beetles.—Any of the common black or brown beetles

may also be angled with, as directed for grasshoppers. Various species, of different sizes and colours, may be found infesting different sorts of trees and plants, as well as in the neighbourhood of all decaying matter, animal and vegetable. The copper-coloured ones are the best, while those found under horse and cow dung in the meadows are excellent baits for large trout. In preparing beetles for baits, the elytra, or external wing-covers, should be cut off with a pair of scissors, and then the hook inserted through the thorax, allowing the legs to hang downwards, when they may be dipped with on the surface the same as flies. They may be secured in any wooden or tin box perforated with air-holes. The carnivorous tribes, however, are very apt to attack and destroy each other when confined in close quarters, and will often carry on a war of extermination, until nothing but a single valiant conqueror remains to hold his desolating sway over a devastated heap of mutilated remains ; or the bloody conflict lasts, until they have fairly eaten up each other like the Kilkenny cats.

In fishing with beetles and grasshoppers in the streams and open water, place a single shot pellet on the line in order to keep the bait rolling along about mid-water (this may be done by proportioning the size of the shot pellet to the strength of the current), and commence at the top of the stream, as in worm-fishing ; and creeping cautiously forward on hands and knees, if requisite, drop the beetle or grasshopper gently and slily over the bank, close by the edge of the water in the first instance ; then gradually advance, cast after cast, until

you can fish the whole stream regularly down. Throw the bait gently across the water, after the first few trials in shore, and allow it to swim quietly down with the current, sometimes just under the surface, and at others about mid-water, particularly where it is deep. In small reedy waters, fish where the current is strongest, among the openings between the weeds, over hollow banks, under and about trees and bushes, and other likely places; observing to lengthen or shorten the line, as occasion requires.

Care must also be taken with these fly-baits, that they are never allowed to sink below the surface on any occasion, or they immediately become useless:—and for this reason they are best adapted for dipping over banks, or among trees and bushes in calm weather and still water. While the more hardy beetles and grasshoppers are equally adapted for fishing in the streams at mid-water.

Every attention must be paid to keep the fingers clean and dry in attaching the winged natural flies to the hook; otherwise their wings will be damaged, and themselves rendered valueless as baits.

In pursuing this stealthy mode of fishing, every operation and movement of the sportsman must be conducted with the most cat-like secrecy and caution;—as on the adroitness of his proceedings success in this branch of the art will chiefly depend. On proceeding to work, the angler (or more correctly, fisher, in this case) must endeavour to conceal himself perfectly from observation, by snugly ensconcing himself behind a

bush or over-hanging bank ; and at the same time take the utmost care to render the rod and tackle as little conspicuous as possible. He must then draw out as much line as will reach from the tip of the rod to the surface of the water, but no more ; and having attached to the hook the bait, say a green drake, and the bank before him being clear of bushes, he must swing it cautiously over, and allow it slowly to descend to the surface of the water, taking care to permit as little of the tip of the rod to project beyond the bank as he conveniently can. If, on the other hand, the margin of the water is incommoded by bushes, or boughs of trees, he will not be able to swing his bait over in the above fashion, but after affixing it to the hook, he must proceed to coil the line around the tip of the rod, until it will pass among the branches without getting entangled, when the rod must be introduced very slowly and deliberately through the branches into a proper position, and the line uncoiled and the bait lowered, by twisting the rod in the opposite direction, until the hook reaches the water. The top of the rod should be concealed as much as possible among the branches ; while, in the process of lowering the bait, if it is found necessary to move the rod at all from its position, it must be done very slowly and deliberately, to avoid creating alarm, as the more it is made to assume the character of an extended branch, the less likely will it be viewed with suspicion. Before reaching the water, the bait should be suffered to dangle backwards and forwards a few times, just hovering over the surface. This will exhibit it in a very tempting manner to the

fish, and it will inevitably be seized with the greatest eagerness, the moment it touches the surface; or even before it has time fairly to do so, provided there is a trout within sight of it, and the sportsman keeps his own anxious visage out of sight. In this manner numbers of large trout may be taken by a dexterous hand, in a water properly adapted to this mode of fishing; as during the droughts of summer—the only time when it can be practised with much success—the fish are ill-fed and hungry. On a fish being hooked, the angler must either contrive to lift him slick out of the water, with as little disturbance to it as possible; or otherwise, if too large to permit of such a summary proceeding, he must endeavour with all speed to lead him away from the pool, where future sport may be had, towards an eligible landing-place.

Again, should no bushes or other cover be at hand to conceal the angler, he must glide stealthily forwards towards the water on all fours, donkey-fashion, and cautiously and deliberately let the bait down over the bank edge, without exposing more of the rod than its very tip, and scarcely even that if he can avoid it; but this can only be done in places where the bank overhangs the water. He must also remember, that no part of the line whatever must ever touch the water, but only the baits themselves; and that they must also be constantly kept upon the surface; for if their wings get wet (in the case of flies being used), they will be rendered useless, and will require to be immediately replaced.

The natural fly may also be used upon a fly-hook,

baited as above directed, in the open water and in streams, with a long light rod of not less than twenty or twenty-two feet, when the angler must have the wind on his back, and allow the fly to swim down with the current upon the surface. But it is by no means a successful process, as it is very difficult for the sportsman to keep himself out of sight, where there are no banks or bushes to cover him; and the fly speedily becomes immersed beneath the surface and destroyed by the current. Perhaps the best way, when there is a breeze, is to allow it to dance up and down upon the surface by the wind.

In dipping and shade-fishing among bushes and trees, a pannier suspended at the back will be found inconvenient to the free motions of the angler:—and in this case a Macintosh Wallet, made to attach by means of button-holes to the buttons of the braces on the waistband of the trousers, will be found a most convenient substitute, as it will hang unobtrusively on the left hip, within the skirt of the jacket; while the india-rubber is such a bad conductor of caloric, that the fish will be preserved from any injury from the heat of the person. The accompanying Fig. 16 shows the shape of the Wallet;—and it may be made large enough to contain three or four dozen trout, without the angler feeling it any great encumbrance.

Fig. 16. DIPPER'S WALLET.

CHAPTER VII.

MINNOW-FISHING.

Merits of new-fashioned Baits—Spoon-Baits, *et hoc genus*—Artificial Minnow—Catching and Preservation of Minnows—Live-Minnow Preserve—Trolling-Rod—Reel-Line—Swivel-Traces—Walton's Directions for Trolling—Single-Hook Tackle—Dead-Minnow Roving—Dip Minnow-Trolling—Spinning-Tackle—Cowans' Method of Trolling—Fly Minnow-Fishing—Bait and Tackle-box combined—Patience a Virtue—Model Pool for Minnow-Spinning—How to cast the Bait—How to play it—How to strike a Fish.

NEXT in rank to fly-fishing as a lively and scientific mode of angling, in our estimation, unquestionably stands minnow-spinning and trolling, whether we regard it as an elegant pastime or a difficult art. And although our captures with it may by no means equal those with the fly in numbers, they will in general far surpass them in size and quality. The chief drawback to its more general adoption is, that it is only on particular rivers naturally adapted to this method of fishing that it can be pursued at all times with success; and that, in small and clear streams, it is only to be used after a flood, while a moderate freshet is still on the river, or late in the evening during the height of the summer. Before, however, we speak of the art of minnow-trolling, I may be allowed a word or two respecting the various new inventions intended to increase the resources of the troller, in the

shape of new-fashioned bait,—"Archimedean minnows," "sensation baits," "nobbler flies," etc.—each one more destructive than any that have been seen in the world before. Truly, they would have one believe that the appetites of the fish were as capricious and as prone to novelty as milliners or young ladies, or as fond of new inventions as a "patent" agent. But I much mistake if the fiftieth part of these are anything but mere shams and stratagems to catch customers; or absurd *improvements upon nature*, by which the inventor hopes to hand down his name to posterity.

To suppose that a fish will be tempted to take a fly dressed according to the artificer's imagination, and of a colour totally different from any insect that has ever been upon the face of the earth, in preference to those which constitute his daily and favourite food, is an absurdity; and to suppose that artificial minnows, worms, and caterpillars, can be used with more effect than the originals is still worse. No imitations, however well executed, can ever hope to equal the real Simon Pure himself: and can only at best be used as clumsy substitutes when the real thing cannot be had; while to place any faith in the efficiency of these new-fangled edibles—brass minnows, spoon-baits, and other *lusus naturæ* of that stamp—in fishing for trout in ordinary waters, is of all absurdities the king and chief.*

* The author begs to qualify the above strictures upon the above-named new inventions by stating that he only refers to their use among *ordinary trout* in what are really and exclusively trout streams—clear waters of limited size. What their efficiency may be among the leviathans of the Thames, the Severn, the Trent, etc., or amongst the

Yet it cannot be doubted from the most respectable testimony that, unnatural as it may seem, the spoon-bait is sometimes taken both by salmon and pike; but they must certainly either be famishing of hunger, or seize it merely from motives of curiosity; but I would not for one moment suppose that an ordinary trout will ever come within twenty yards of it, as he is a much more wary gentleman than either of the former, and will seldom allow his curiosity so far to overcome his caution as to risk a trial of any bait with which he is not thoroughly acquainted. I have also seen well-made gutta-percha beetles and grasshoppers, which, perhaps, may be efficient enough either among trout, carp, chub, greyling, or any of the fly-taking fish, if adroitly used as dipping-baits; while a thoroughly good imitation of the green and grey drake flies, combined of any material which will keep them floating high and dry on the surface, like the natural insect, might be a valuable invention. I have heard that there are such to be had, but as I have never tried them, I can say nothing about their merits. Again, there is an artificial shrimp newly come out as a bait for salmon, which, if well executed and of a proper material, promises to prove effective, seeing that this fish feeds so largely on these crustaceans during his residence in salt water. So it would appear after all that a certain set or class of artificial baits, constructed of proper materials and upon rational principles, might be made useful adjuncts to the angler's tackle-book; but away

coarser fish, he cannot pretend to say, never having had an opportunity of testing them.

with such abominations as brass minnows, Archimedean screws, etc., unless they are for the purpose of banishing fish from the waters or propelling machinery.

As it does, however, happen that during flooded states of the water, when the minnow can be used most successfully, this little fish runs off and hides himself in out-of-the-way holes and corners, secure from the violence of the flood, as well as from the most cunning devices of the angler to entrap him; if the latter should unfortunately have neglected to provide himself with some in a preserved state, he must either have recourse to an artificial representation or defer his operations altogether. In this case, but in this only, and when no other method of fishing will succeed, should he consent to the use of the india-rubber substitute.

Catching and Preservation of Minnows.

Every sportsman who devotes much time to angling ought always to have in stock a good supply of minnows, either alive or preserved. They may be caught when the waters are fine and low, either with a casting-net, hoop-net, or by a fine fly-hook and a morsel of small worm, or a maggot. But the former methods are preferable if they are to be preserved alive. A method called foxing may also be resorted to where the shoals are numerous. This is done by mixing bread crumbs with *coculus indicus*, and tossing them into the water, when the minnows will become helplessly intoxicated, rise to the surface,

and flounder about in an insensible state, when they may be scooped out with a landing-net.

I have invariably found that during, or immediately after, a flood, when most wanted, they could not be had on any terms,—having either been driven from their usual haunts, to seek safer quarters from the violence of the stream, or, after the example of their betters, so completely gorged themselves as to regard the most tempting little worm with disdain. The only alternative then is, to try the sides of the eddies close by the margin of the stream, or any quiet retired hole behind a projecting bank or stone, with the hoop-net, when a few may be taken. And, by the way, quantities of trout may be taken in the same way during high flood, although such a method of fishing, I need not say, is only adopted by the poacher and the sneak. For the above reason, a good stock of salted minnows should always be kept on hand, as they will render the angler perfectly independent.

It is only the medium sized and smaller minnows, with bright silvery bellies, that should be retained for use, while all overgrown and dingy coloured gentry must be returned to their native element, unless the angler wishes to try their quality as an edible,—in which respect I can inform him from experience that, as a fry, they are fit to be set before a king, being equally as delicate as the renowned whitebait, and inferior to few fish that can be cooked. But one consideration alone always prevents me from indulging more frequently in this delicacy, viz., the vast number of innocent little lives that must be sacrificed ere a moderate dish can be made. Who

has not read of the minnow tansy of Walton? I observe that during their spawning-time the minnow becomes of a dark red colour, something like a spent salmon, and that the head becomes covered with curious bony points. In this state they are utterly unfit for baits.

Having caught the minnows, those intended to be kept alive must be at once placed in a proper minnow-kettle, while the best way to preserve the others fresh and free from taint for two or three days, is to pack them in wheat bran, which absorbs the superabundant moisture from their skins, and dries up the mucus which otherwise would quickly decompose. If thus treated, and placed in a cool cellar, they will remain fresh and sweet for three days at least. And, remember, it is indispensable that all baits used in either trout or pike fishing shall be fresh and free from all taint whatever. Whatever may be thought to the contrary, it nevertheless is a fact, that the sense of smell in these predaceous fish is sufficiently acute to detect the slightest taint or decomposition in the baits long before any change is apparent to the sportsman. Of the truth of this I have had ample demonstration.

When minnows are salted they will retain their natural brilliancy of colour little impaired for several months, and form nearly, if not quite, as efficient baits as when fresh. Although, for my own part, I certainly prefer them fresh and newly caught, as the eye (a very prominent feature in all fish-baits) never fully resumes its natural appearance after salting—nevertheless, I know several excellent and experienced minnow-trollers

who prefer a salted minnow to a fresh one, as they consider them tougher and more lasting on the hooks. I have even heard some affirm that trout were rather partial to the flavour of salt, and consequently took a salted minnow in preference to a fresh one. This I take to be a mere conceit unsupported by facts. At all events, the pickled baits possess one great advantage over fresh ones, and that is—they are comeatable, and ready for use at all times.

How to Preserve Minnows.

For pickling, lay the minnows, after careful selection, in a plate, and cover them over with salt. Allow them to remain twelve hours or so, when the salt will be found to have resolved itself into brine ; this is the superfluous moisture of the fish in combination with the salt—which drain off, and cover them again with fresh salt, or salt and sugar mixed ; when, having allowed them to remain other twelve hours, place them in a wide-mouthed glass or earthenware jar (a common pickle-bottle makes an excellent receptacle), close it with a good sound cork, and seal it over with wax. Minnows thus treated will be found to preserve a great part of their freshness and brilliance for many months, and will swell out and regain their plumpness after a short immersion in the water. All fish-baits retain their brilliance of colour best in spirits of wine, but it is expensive. Methylated spirit acts equally well as a preservative, and it is much cheaper.

An excellent plan by which the sportsman will always have fresh baits at command, is to construct what I call

a live-minnow preserve. This consists of a wooden box, four or five feet long, by two feet wide, and one and a half in depth. The box must have the ends near the upper part perforated with gimlet-holes; or perforated plates of tin or zinc, or wire gauze, may be fixed over openings cut in them. It is then to be placed, sunk within six inches of the top, in the bed of a drain or small rill, where a current of water will circulate through it. The bottom of the box ought to be covered to the depth of a few inches with gravel, and it may also have a lid to keep all secure from the depredations of boys and herons—the chief marauders to be dreaded. If a pane of stout glass or copper gauze is inserted in the lid of the box, and a lock attached, the whole is complete. The glass in the lid is to allow the fish to see to feed. In such a receptacle minnows may be kept in a healthy state for any length of time ; and if occasionally fed with small worms, grubs, and caddies, I have no doubt they would breed and multiply, provided the box is large enough, its bottom properly covered with sand and gravel, and the glass in the lid freely admitted the rays of the sun. When wanted for use, the minnows may be caught by means of a small bowl-net, made of a ring of stout brass wire, six inches in diameter, covered with a net of coarse open muslin, inserted into a wooden handle —the whole resembling a large soup-ladle.

Minnow-Trolling.

The best method of constructing trolling-tackle, and

the proper way of using it, I have found, after a long experience and a persevering trial of numberless systems, to be as follows :—

The rod for trolling should be considerably longer and stouter than the single-handed fly-rod, and not less than fifteen or sixteen feet in length, and rather stiffer and altogether more powerful than the double-handed rod for trouting purposes. A light salmon-rod of sixteen feet makes a very efficient implement. An extra stiff top-piece to the fly-rod is sometimes used in lieu of one for the special purpose ; but, like most other substitutes, it never does the work in the same efficient style. A long rod in this kind of fishing not only gives the sportsman a much greater command of water, but it also enables him to keep his jolly countenance out of sight of the fish. A certain amount of stiffness in the rod is also essential in order to play the bait properly and strike a fish with quickness when he seizes it.

The reel-line for minnow-trolling must be of a thicker and stronger texture than the fly-line, while the whole of the swivel-traces and the gut-line should be formed of salmon gut, or the strongest and soundest trouting gut. My own method of fitting up a swivel-trace is as under: —To the end loop of the reel-line I attach about two feet of casting line, formed of three plies of stout round trouting gut, twisted together ; to this is looped a strong box swivel ; then two and a half or three feet of round single salmon gut, having at its termination a hook-swivel, by means of which I can attach any set of minnow-hooks at pleasure, as the latter are all whipped only

upon a single length of gut, with loops to slip on and off the hook of the swivel as required. The sets of hooks may be thus easily and expeditiously changed to suit the size of the baits, or to please the fancy of the sportsman when he takes it into his head to try another arrangement. Some may consider two swivels upon the same traces a superfluity, but a few trials will soon convince them that the bait spins much more freely with two swivels than one, while the line never becomes twisted into snarls as is frequently the case when there is only one.

Hook-Sets.

The different kinds of hook-sets will next engage our attention, as the arrangements may be varied to an almost infinite extent according to the fancy or ingenuity of the sportsman. I will content myself, however, by only describing a few methods which I have found eminently efficient in my own practice. Premising that the following five points embrace the chief excellencies of any arrangement of hooks whatever, and that the sportsman must have a due regard for them in all such fresh contrivances as he may think proper to adopt, I shall give them in their order:—

Firstly, All the hooks to be so placed, as to be well concealed in the body of the bait, so as not to deter the fish from seizing it.

Secondly, The hooks to be so placed as to render it next to impossible for a fish to mouth the bait without being hooked.

Thirdly, The body of the bait to be secured in such a position as to cause it to revolve briskly.

Fourthly, The hooks to afford ease and expedition in baiting.

Fifthly, And not liable to tear and disfigure the bait.

Before going farther I may be excused for noticing the plan recommended by the venerable Walton, two and a half centuries ago, as it forms the foundation of all our modern methods of minnow-trolling, and is still used by many accomplished sportsmen. He says :—

"Put your hook in at the mouth (of the minnow), and out at the gill ; then having drawn your hook two or three inches beyond it through his gill, put it again into his mouth, and the point and beard out of the tail ; and then tie the hook and his tail about very neatly with a white thread, which will make it the apter to turn quick in the water ; that done, pull back that part of your line which was slack when you did put your hook into the minnow the second time. I say pull that part of your line back, so that it shall fasten the head, so that the body of the minnow shall be almost straight on your hook ; this done, try how it will turn by drawing it across the water, or against the stream, and if it do not turn nimbly, then turn the tail a little to the right or left hand, and try again, till it turn nimbly, if not, you are in danger of catching nothing ; for know, that it is impossible that it should turn too quick."

It cannot be denied that the directions here given, although more than two centuries old, and scarcely up to the more scientific tactics of the present day, contain the fundamental principles of minnow-spinning ; as, for example, the quickness of the revolutions of the bait in the water, which is so essential to success, more especially when many hooks are used, as they are by that

means concealed from view. Our most successful modern methods scarcely differ from the directions given by old Walton, except in improvements in regard to tackle. The swivel, and the various arrangements of double and treble hooks, throat leads, etc., were unknown in the days of the venerable father of the angling fraternity, and are only the offspring of the superior inventive faculty that characterises more modern times. What would have been his opinion of the "Kill Devil," and other such contrivances, I will not undertake to say. But, perhaps, the most simple and primitive method of trolling is Mr. Stoddart's, and it may with propriety be styled

Dead-Minnow Roving.

He says: "The most simple, and in some places the most deadly (method), is a common single bait-hook. This we insert through the back of the minnow, and drawing it out, run below the gill, allowing the barb to protrude from the mouth; we then tie up the tail along the gut, either with a piece of silk thread, or more expeditiously with the gut itself hitched over the part. This is angled with in the same manner as the worm, allowing plenty of time for the fish to gorge."

As I have never practised this method, I can give no personal testimony regarding its merits, but have heard it extolled by a crack fisher who was in the habit of adopting it on certain occasions. Nevertheless, in spite of the high authority who recommends it, I am inclined to consider it only a *dead bait* in most rivers as far as sport is concerned, unless the trout are either very ill-fed or very voracious.

Dip Minnow-Trolling, or Sink and Draw.

Mr. Stoddart next goes on to say—

"A tackle similar to the above may be used in standing pools or lochs; here, however, the shank of the hook (a long one) is loaded, and the bait allowed to descend rapidly towards the bottom. Large cautious fish are sometimes taken by this method of angling."

Of the efficiency of this kind of trolling I can speak with the greatest confidence, and consider it the method *par excellence* for all still waters, whether they be the sluggish deeps of a river, loch, or deep pond;—the principal requirements being, that the water in which it is conducted must be of sufficient depth, say not less than four or five feet, and nearly still.

The tackle may also be considerably varied according to fancy, but all bear a close resemblance to that used in pike-trolling, only upon a smaller scale, as it is conducted in a precisely similar manner. Some prefer a single long-shanked bait-hook, with about one inch of its shank covered with lead; when the gut to which it is attached is to be drawn in at the mouth, and out at the tail of the bait, by means of a baiting-needle, and the barb of the hook retained in the centre of the mouth (projecting upwards), by means of a stitch of silk on each side. Another stitch, including both the back-bone of the bait at the fork of the tail and the gut as well, will retain it straight on the line, and the whole is ready for action. Or two hooks may be soldered or whipped back to back, at an angle of 45°, to a length of good

stout gut, with a perforated pipe-lead, half or three-quarters of an inch long, slipped up to the bend of the hooks. In either case, the method of baiting is the same as directed for the single-hook tackle, and the whole is to be hung to the hook-swivel of the traces by its loop. I may here mention, that should the angler not be provided with a regular baiting-needle, a common thin darning-needle, such as housewives use, with the under part of one side of its eye filed through to admit the loop of the gut, will make an excellent substitute.

The following is the best method of using this kind of tackle:—

Having the bait attached and all in readiness, with a line out equal to the length of the rod, withdraw a few yards more line off the reel, which hold loosely in the left hand, then sling the bait with as much impetus as possible across the water; when it has reached the extremity of its swing, and before it falls upon the surface, let go the portion of the line held in the hand, when the momentum of the bait will carry it several yards farther. As soon as it reaches the water, immediately lower the point of the rod, and allow it to sink to the bottom, then commence alternately drawing it nearly, but not quite to the surface (so as just to be visible beneath the water), and allowing it to sink again as quickly as the plummet in its interior will carry it down. Keep thus alternately drawing and sinking the bait until it reaches the edge of the water, and it will be seen that if the plummet-lead is heavy enough, the bait will shoot hither and thither during each descent to the bottom, first in one direction and

then in another, in the most natural manner possible, and have very much the appearance of a minnow at play. This piece of impertinence on the part of the bait, if played off in the presence of a dignified trout, will be certain to excite his indignation, and he will, on most occasions, very unceremoniously resolve to make it pay the penalty of its impudence by a consignment to his paunch.

I shall close my observations on this method of trolling, by remarking that it invariably happens that both trout and pike will seize the bait when it is being drawn up towards the surface, when its motion is comparatively slow, and scarcely ever while it is shooting rapidly towards the bottom; and that the former generally follow it near in shore before they take it. As soon as a fish is felt at the bait, do not strike instantly, as is done with the spinning-tackle, but immediately slacken the line, and allow him fairly to turn and gorge it, which he will do in the course of a second or two, then fix the hooks in his throat by a sharp twitch, and he is your own. The same swivel-traces must be used in this kind of fishing as are used in spinning. Some sportsmen are in the habit of lopping off a pectoral and a ventral fin on opposite sides of the minnow, supposing it causes it to play more briskly, but I have found this mutilation unnecessary.

Minnow-Spinning.

The following are a few sets of spinning tackle which I have been in the habit of using myself, and which I consider to be quite as efficient, and as free from defects,

as any I have seen described by others, and I unhesitatingly ignore most of those fanciful contrivances which we see paraded in the sporting periodicals of the day.

Fig. 17. Minnow-Spinning Tackle.

The above set consists of a large round-bend minnow-hook, of Phillips and Adlington's make, *a*, whipped to a length of stout gut, upon which the lip-hook, *c* (a No. 2 or 3 round-bend fly-hook), is also whipped about half an inch from the end of the large hook, and at right angles with its plane (the shank of this hook should be shortened). To another piece of gut about one inch in length, a small-sized bait-hook, *b*, is whipped; this is attached by a sliding loop to the gut length of the large hook, in which a permanent knot must be cast at *e*, to retain the hook *b* midway between the other two when all is drawn taut. *d* Is a bead lead which slips down upon the bend of the lip-hook *c*, and lies concealed in the minnow's mouth.

To apply this arrangement to the bait, draw the bead lead and the loop of the hook *b* back from the knot *e*, and insert the large hook into the mouth of the minnow, and bring its point out at the middle of the tail fin, allowing a sufficient portion of the tail to remain recurved upon the hook to cause it to spin properly. Little

more than the point and barb of the large hook ought to protrude beyond the caudal fin. Next introduce the hook *b* into the mouth of the minnow, and bring its point out in the middle of the side opposite to that from which the tail hook projects. Then stick the small hook *c* through the back part of the mouth, and bring its point out at the junction of the head with the shoulders, and slip the bead lead forward into the minnow's mouth, and the whole is ready for action. If a bead lead is not at hand, a few large shot may be applied to the line. Lead applied to the shank of the large hook is objectionable in this case, as it would render the insertion of the hook *b* difficult. Upon the whole, I consider this set of spinning-tackle to be as simple, unobtrusive, and probably as efficient as any, and well adapted for clear waters or shy fish.

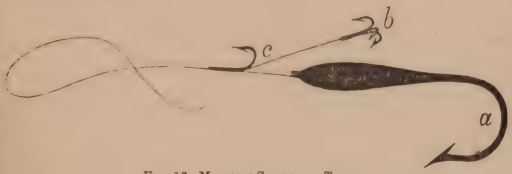

Fig. 18. Minnow-Spinning Tackle.

In this set, *a* is a large hook with a leaded shank; *b* a triangle of small hooks soldered together, and whipped to a piece of gut about three-fourths of an inch in length, one end of which is tied in along with the lip-hook *c*. This triangle is stuck on the outside of the shoulder of the minnow, on the contrary side to the point of the large hook. The method I adopt to cover

the shank of the hook, is to wrap a narrow strip of lead, beaten out thinner at one end than the other, over it after it is tied upon the gut, and pare it off to the proper shape and thickness with a sharp knife, when the whole may be polished over with a file. Or leads of the proper size and shape may be cast in a mould with a hole through their centre, and then slipped upon the hook after it is whipped to the gut, and before the other hooks are attached.

Since writing the above, I have contrived the following improvement in the above set of spinning-tackle, which renders it much more easy to bait, when a sliding pipe-lead is used, instead of the fixed lead upon the shank of the large hook ; since in that case the shank of the latter cannot be firmly laid hold of, in order to introduce it down through the body of the minnow in a proper manner.

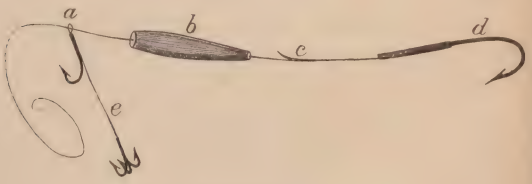

Fig. 19. Minnow-Spinning Tackle.

In this arrangement the lip-hook and off-side triangle are whipped upon a separate piece of gut, with a loop at *a*, just large enough to allow it to slide easily along the gut, but no more, in place of being permanently fixed to the main line as in Fig. 18 ; *b* is a sliding

pipe-lead which runs easily over the armature of the large hook *d*, up to its bend, as well as over *c*, which is a knot in the line, or the shank of a small fly-hook snapped off with a very small portion of the bend remaining, against which the loop *a* is arrested and securely retained ; when the pipe-lead and the piece containing the lip-hook and triangle are pulled down into their places, the whole will appear precisely as in Fig. 19. It may be well to whip the whole of the gut between *c* and the shank of the large hook with silk to protect it from being chafed by the pipe-lead.

In applying the minnow, it is only necessary to slide the triangle piece and the pipe-lead down the line, and insert the hook *d* down through the mouth and out at the tail of the bait, as above directed, and then slip the lead down the minnow's belly, and attach the triangle and the lip-hook in their proper places, when the whole will be completed.

Pipe-leads may be easily cast by excavating a mould of the proper size and shape in a lump of dry chalk or plaster of Paris, or by boring a hole with a middle-sized gimlet of the required depth in a piece of dry wood ; in either case, a smooth wire of moderate thickness (a steel knitting-needle answers admirably) must be stuck vertically in the centre of the mould, to form the pipe of the lead, when it is withdrawn. Should the wire become tightly fixed in the lead after casting, and refuse to leave it, a few gentle strokes with a light hammer given all round the lead, while the latter is resting

on an anvil or some hard body, will cause the lead to expand, and immediately release it.

Large hooks of the Limerick shape are less obtrusive in appearance, and less likely to arouse suspicion in the fish, when fixed in the minnow, than the round bend, but they are much more difficult to apply without injury to the bait from the narrowness of the bend.

The foregoing is an excellent set of spinning-tackle, and one I prefer above all others, for the ease and expedition with which the minnow may be applied, the true and rapid manner of its spinning, the freedom from anything conspicuous to arouse the suspicions of the fish —as the plummet is entirely concealed within the body of the bait—and the almost utter impossibility of a fish attempting to mouth it without being secured.

When I am compelled to use fresh-caught minnows with this set, full of food or spawn, I always empty their bellies of their contents, air-bladder included, by introducing a pin with a minute portion of its point bent at right angles into the vent, squeezing them moderately at the same time, when the whole will be evacuated, and room thus made for the introduction of the lead without danger of bursting them open.

The following set, it will be observed, is furnished with a brass spinner, *c*, attached by a short loop of gut to the bend of the lip-hook, *a*—this piece of brass (which must be sufficiently thick towards the fore part to act efficiently as a plummet) is twisted towards the left hand, into the proper curve to cause the bait to revolve in the water; and is to be thrust right along by the side of the

backbone of the minnow to the extremity of the tail, when it will retain it in a proper position for spinning.

Fig. 20. Minnow-Spinning Tackle.

It must be sufficiently thinned towards the small end so as to be inserted with ease, and without injury to the bait. It is scarcely necessary to say, that the triangles of hooks are to be stuck into the sides, and the lip-hook *a* into the lips of the minnow. This is a very good arrangement, and as the hooks are numerous, the triangles must be small in size.

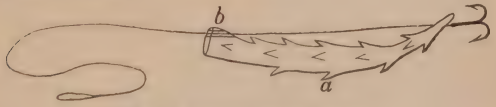

Fig. 21. Minnow-Spinning Tackle.

The above, much used on the Whitadder, is well calculated for clear waters, or where the fish are unusually shy and suspicious, as only two moderately-sized fly-hooks are used, and those in a great measure concealed by the tail-fin. To use it, attach the loop of the gut to a baiting-needle, which insert at the middle of the fork of the tail, bringing it out at the mouth, then slip it through the hole *b*, in the upper margin of the belly-lead *a*, and push the lead down the body of the minnow until

it nearly reaches the tail, when the hooks will lie alongside the spread of the tail-fin, and the whole is ready for action. The belly-lead is a laterally compressed cylinder of lead, with the requisite twist to cause the bait to spin, and with barbs raised up from its surface pointing towards the mouth, which effectually prevent the minnow from becoming crumpled up upon the line by the action of the current; while an elevated margin is left on a portion of the thick end at *b*, where a perforation is made for the gut to pass through. Although numerous fish may be expected to run at this tackle without being secured, yet it will be the means of effecting the capture of others, whose suspicions would be at once on the *qui vive* were there a more conspicuous array of hooks; and the chances of capture among the extra number of fish that may be tempted to seize it may counterbalance the number of those lost.

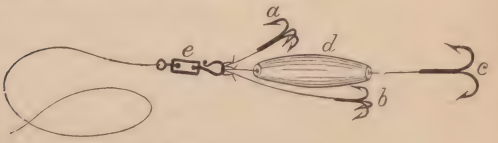

Fig. 22. Minnow-Spinning Tackle.

This arrangement somewhat resembles Fig. 20 in the position of the hooks; but in the way in which it is applied to the bait the whole of the gut to which they are attached is concealed internally, instead of being exhibited on the outside, hence it is a neat and efficient set. But the chief objection I have to it is, that it is rather troublesome to bait—a drawback which puts the angler's

patience sadly to the test, especially on a taking day. It will be observed, by reference to the figure, that *a*, *b*, and *c*, are two triangles and a pair of hooks, whipped upon three separate pieces of gut, each of which has a minute loop at its other end to apply to the hook of the swivel *e*, while *d* is a belly-lead placed upon the piece *c*.

To apply it to the bait, detach the loops from the swivel, and withdraw the hook *c* from the belly-lead, and taking a baiting-needle, attach *c* to it by the loop—insert it into the fork of the tail, or rather a little on one side and above it, according to the size of the bait (calculating that when the whole are attached to the swivel and upon the stretch, the tail must be sufficiently drawn on one side to cause it to spin freely), and bringing it out at the mouth, slide the pipe-lead over it, and push it down through the belly; release the needle, and slip the loop on to the swivel. Next attach the triangle *b* to the needle, and insert it into the middle of the off-side of the minnow, bring it out at the mouth, and loop the gut on to the swivel. Finally, do the same with the triangle *a*, fixing it at the junction of the head and neck, when the whole is in readiness. I have no doubt some may object to the swivel being placed so near to the nose of the minnow, but if it is upon the smallest scale that is consistent with safety, I have never found the trout deterred from running at it. And probably they may consider it some small object which the minnow itself is endeavouring to seize.

Before quitting the subject I shall relate a method of trolling with a single bait-hook, without either sinkers

or swivel, imparted to me by one of the best professionals on the Coquet, John Cowans of Rothbury. It is simply this :—he enters the point of a common full-sized bait-hook in at the mouth of the minnow, and brings it out just behind the back-fin. He then proceeds to business by dropping it into the head of a stream, and gently drawing it backwards and forwards for a minute or so near the same spot ; then allowing it to descend a few yards lower down with the current, he repeats the same manœuvre. The movements of the bait are guided by a motion of the rod similar to that employed in spinning, but only in a much more deliberate and gentle manner. Of course the bait in this case does not spin at all ; and the intention is to cause it to simulate the motions of a minnow endeavouring to ascend the stream, but unable to contend with the force of the current. This he informed me was a very deadly method for large trout, and I have myself seen him take one upwards of 2 lbs. by this means.

I have now only to mention a method adopted by some sportsmen in blustering windy weather, which is called fly-minnow fishing, and consists in impaling a small minnow, about half an inch long, on a large fly-hook, and fishing with it on the surface the same as with fly.

Having pretty well exhausted the patience of my readers on the subject of minnow-tackle, I shall just mention what will be found a convenience in the shape of a box, so contrived as to contain both baits and tackle together, thus economizing the angler's pocket-space. It consists of a box of sheet brass or tin, five

inches long, by three and a half inches broad, and two inches deep, with a transverse partition across the middle of the depth, so as to divide it into two separate and distinct boxes, combined in one; and having each a lid opening in opposite directions. One of the compartments is destined to contain minnows for baits, of which it will hold enough for a long day's fishing, while the other is divided into compartments as shown in Fig. 23, for the purpose of holding the tackle.

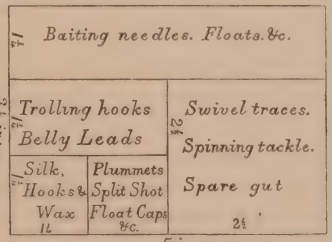

Fig. 23. Minnow-Fishing Box.

The above will be found a very handy magazine for both baits and tackle, and relieve the angler of a considerable deal of incumbrance, by making one box do the duty of two.

When and Where to use the Minnow.

He who slumbers away the best hours of the morning in bed, will only arrive at the river-side to find to his chagrin almost every stream taken possession of by some one more wide-awake than himself, and every

inch of water whipped, dragged, and thrashed, with every description of bait the ingenuity of man can devise; when his chance of sport will resolve itself into the merest shadow. The only plan then for an angler to follow, in such a predicament, as is now too frequently the case, is to sit quietly down, light his pipe, and disengaging his pocket-pistol, meditate upon the beauties of the surrounding scenery, the probable occupation of the various personages he sees before him, their peculiarities of character and appearance, etc., and wait patiently for a couple of hours or so, until the trout resume their usual haunts and composure. When a river is thus beset with a host of fishers, it will be of no avail to endeavour to pass on before them (setting aside all the rules of politeness), as on observing your intentions, every one else will commence playing the same game, in order to circumvent you. I have seen two fellows thus chasing each other the entire day over miles of water, seemingly for no other purpose than a mutual determination to prevent each other from fishing. They returned home, of course, with wearied limbs and empty baskets.

In all rivers, unless they are large and deep, minnow-fishing can only be prosecuted with much success during a few days after a flood, when the river is clearing off from a muddy state, and assuming a brown, or dilute porter colour. The trout are by that time satiated with worms, caddies, and other bottom food brought down by the swollen waters, and are then more on the watch for minnow and fly as a change.

Other animals prefer a change of dishes as well as aldermen! Certain it is, that trout take the minnow most freely when the water is as described. I do not know whether the brilliant silvery white of the minnow's belly shows better in contrast with the brown colour of the surrounding fluid, and appears more tempting, or whether it conceals the hooks and tackle better; but this I know, that the best sport is obtained, and the largest fish killed, invariably when a river is in this state.

The beau-ideal of a pool for the operations of the minnow-spinner is where a strong stream, running over a shallow bank of gravel, rock, or sand, loses itself in a deep dark pool below, with boiling eddies seething round on each side; if bushes, roots, or rocks, overhang the pool, so much the better. Here the Goliaths of the waters keep watch and ward, just at the termination of the strong parts of the current, or in the eddies at the side, for what fortune and the waters may bring them. But when the waters are at all flooded, the trout will be found to have left their usual haunts and dispersed themselves generally over the shallower parts of the river, roaming in search of prey. They will be often found in the most unlikely shallows and out-of the-way places near the banks, where a fish larger than a minnow fry is never seen in the ordinary state of the water. It will therefore be necessary at such times to try every inch of water where a trout can swim—particularly the eddies and shallows at the sides of streams; the broad shallows between the streams, where large trout often lie in a flood, secure from the violence

of the current; and where those in search of minnows instinctively know their prey is to be found; and in the entrances to backwaters from the main river; at the mouths of rivulets, ditches, etc. It is of no avail fishing in the powerful current of the main stream at such a time, as every fish will have abandoned it for the place of refuge described; and nothing less powerful of fin than a Newfoundland cod-fish would remain there for a moment. But in fishing the eddies and shallows, it is always necessary to cast the bait well into the current beyond, and then draw it adroitly through them, in order not to disturb the spot where the fish are expected to lie. In the ordinary state of the river, places where the current beats upon, or runs by the side of overhanging banks, bushes, roots of trees, or large stones, or behind piles, are favourite haunts of large trout; and in such places allow the current to carry down the bait slowly and gradually towards and past them, keeping it spinning rapidly all the while by a moderate action of the rod against the current. The minnow will thus appear to the fish to be making most strenuous efforts to escape up stream, but being unable to stem the current, falls as it were an unresisting victim into their very jaws. In this manner we may often succeed in tempting some of the over-fed and indolent gluttons to take the bait.

Casting and Playing the Minnow.

On approaching one of those pattern pools above mentioned, take your stand as far from the water as

possible (if your stature is more than five feet six inches, you had better endeavour to advance on all fours), draw out the line to the same length as the rod, retaining at the same time a couple of yards of slack between your right hand and the reel, the fingers of which must embrace the line along with the rod, and only allow the slack to run out when the bait reaches the extremity of its swing. Now cautiously approach the shallow current at the head of the pool; take the line in your left hand a few inches above the bait; bring the rod half round opposite to your left side, with its point in a horizontal position; then swing off the bait, at the same time elevating the rod, so as to carry it as far across the water as possible; and just as it reaches the extremity of its swing, relax your hold of the line with the fingers of the right hand, and allow the slack to run out; at the same time gradually lower the point of the rod, so as to ease the bait into the water as gently as possible. The unloosing of the slack line will enable the bait to reach a yard or two further across the water than it would otherwise do; while, its course being unchecked until its momentum is expended, it will reach the water without disturbance. In this manner a bait may be quietly dropped into the very spot aimed at, though at a considerable distance off, with the greatest gentleness and precision, after a little practice. And I will here, once for all, observe, that in minnow-fishing the bait is always to be slung into the water as directed, and never cast or thrown across the water as in fly-fishing, although almost every bungler will be seen to do so.

The latter method would not only make such a splash and disturbance that all the fish within sight would instantly scuttle off in alarm, but the minnow would be so mutilated and injured after two or three casts, as to keep the angler doing little else than applying fresh baits all day long.

From the top of the stream commence to play the minnow by gently tugging it towards you, across and against the current, dragging it about a foot or so at a time; at the same time allowing the stream to carry it a little downwards and around you, in the form of a semicircle; remembering all the while to keep the point of the rod as near to the surface of the water as possible, so as to retain the bait spinning not higher than mid-water. If the rod be kept elevated, it will draw the bait towards the surface at once. When the minnow has nearly completed its circuit, and is approaching the side, the angler should gradually step back a few paces, in order to keep out of sight of any fish that may be following it into the shallows, as in nine cases out of ten they do, and only seize it when close in shore. Therefore always allow the bait fairly to reach the edge before lifting it out of the water, and before doing so, remember to draw in the same quantity of slack line as was given out when the bait was cast, so as to shorten the line again to the length of the rod. Lift it then quietly from the water and prepare for the next cast, which is to be accomplished in the same manner as before. Having made the first cast in the shallow above the pool, where a trout on the feed often

stations himself to catch what the waters may bring down, next step a yard or two farther down, and this time allow the bait to play for a minute or two just over the edge of the shelf, so as to be seen from the pool below, as if it were making most strenuous efforts to breast the current into the shallow above ; when, if a large trout is within sight, he will be tantalized to dart at it like a greyhound at a hare. At every ensuing cast, step a yard or two down the water, and keep the bait playing in as lively a manner as possible for a few seconds in every piece of water likely to harbour a trout—by the side of bushes, roots, piles, stones, overhanging banks, or other favourite haunts—remembering what I have said in regard to allowing the bait to reach close to the margin of the water before withdrawing it. It is the constant habit of trout to chase or follow a minnow right across the water, as if closely examining it, at a foot or two behind, and attempt to seize it only when approaching the shoal water at the side. I have observed them do this scores of times when angling from an elevated bank, and I know many otherwise good minnow-fishers fail in their efforts from an ignorance of the above fact.

When by any chance you observe a trout following or about to strike at the minnow, do not in the flurry of the moment hastily snatch it away from him, as if you were afraid he might get hold of it, and as I have seen some nervous neophytes do ; but rather allow it to meet him as it were half-way. Nevertheless do not cease to keep it spinning, otherwise he might discover the hooks

too plainly; and when you feel that he has seized it, allow him a second or two fairly to turn with it, and then give him a smart but not violent twitch with the wrist, and some of the hooks will be certain to find their way into his jaws. In most cases, however, the same action of the rod which is necessary to keep the bait in play, will have accomplished this at the moment he laid hold of it, and before the angler has time to adopt any ulterior manœuvre.

CHAPTER VIII.

WORM-FISHING.

Difficulty of Worm-Fishing—Insensibility to Pain of the Lower Animals—Different Kinds of Worms—How to procure them—Scouring of Worms—Preservation of Worms over Winter—Rod and Tackle.

OF all the lures in the list of the angler, there is none so universally used as the worm. Being the natural food of most fresh-water fish, it will in skilful hands seldom fail to maintain its high character as an angling bait. But the reader need not suppose that any schoolboy strong enough to wield a willow wand is sufficiently accomplished to be a worm-fisher, as some of our brethren of the fly, who have never tried it, would have us believe. There is no greater mistake. Worm-fishing is, as an art, indeed very difficult to pursue in a proper and successful manner. To fish with worm, and to *kill* with worm, are two totally different matters: and I have observed in my experience, that there are fewer adepts in this branch of angling than perhaps in any other.

No doubt it may seem an easy matter to impale a poor luckless worm, cast it into the water, and wait patiently for chance to guide it into the open jaws of some hungry fish! But to do this in all varieties of water and weather—in still deeps as well as in running

streams—not only requires a vast amount of skill and judgment, a nice adjustment of tackle, and a dexterous manipulation of the rod; but also an intimate acquaintance with the nature and habits of the fish. This proficiency is only to be acquired by time and practice, and it is seldom our lot to come in contact with a thorough crack worm-fisher, who has not seen some forty or fifty summers pass over his head.

Cruelty to Animals.

Men of tender feelings object to worm-fishing from its apparent cruelty, and the rather revolting operation of baiting the hook; and in this respect, it is certainly neither so cleanly nor pleasant as fishing with either the fly or the minnow. But a little soap and water will speedily remove every stain of dirt from the fingers of the most fastidious; while a little sober reflection and inquiry into the physical organisation of the lower orders of animals will absolve the apparent barbarism. When a worm is impaled upon a hook, it evidently must suffer a certain amount of pain, as is evinced by its writhings, which are induced, in my opinion, more from pain than from any merely instinctive efforts to escape, as some writers maintain: yet we may safely infer that the amount of suffering endured cannot be very intense. It is well known that in the mammalia and warm-blooded animals, the higher the grade or the more perfect the physical organisation, the more perfectly developed are their nervous systems and sensitiveness

to injury; while, on the other hand, as we descend in the scale of being, we find that the nervous system is more and more imperfectly organised: until at last, on arriving among the insects and annelids, to which latter class the earth-worm belongs, we lose all vestige of a brain, and find its place only imperfectly supplied by a system of little knots of nervous tissue, arranged in pairs along the interior inferior part of the body, called ganglions. It is this imperfect development of the nervous system, and comparative insensibility to pain or physical injury, that enables them to endure, with seeming impunity and indifference, mutilations which would produce instant death to any member of the higher orders. For instance, a worm will continue alive for upwards of an hour, though impaled from head to tail upon a hook. How long would a human being live in such a predicament? Again, if it is cut through the middle, the upper part of the body will not perish, but will speedily reproduce the part that is lost, and re-form a perfect animal. I have witnessed this reproductive process going on in the worm on numerous occasions. Pull a limb off a spider.—He cares very little about it, and will scuttle off with the remainder as nimbly as if nothing had happened; and a new limb will shortly replace the lost member. And when we direct our attention to reptiles and fishes, a higher class of beings, we will find even them endowed with a wonderful degree of immunity from physical injury, as proved by the following anecdotes.

A large trout has been captured while feeding as voraciously as ever with half a dozen hooks embedded in his jaws, from which he did not seem to suffer the slightest inconvenience. I have taken a small trout of six inches in length with fly, having a large half-healed wound in its side, through which I could insert the tip of my finger into its abdomen, probably produced by the fangs of a pike from which it had escaped. It is recorded that a gentleman once accidentally hooked a perch by the eye, and tore it out on the point of the hook. As an experiment, he returned the line to the water just as it was, and in the course of a few minutes brought to land the identical fish, thus caught while endeavouring to swallow its own eye—thinking, no doubt, he had the best right to it. I have seen a pike taken by night-line on the Saturday evening struggling as savagely as ever on the Monday morning, though all this time a large double pike-hook was buried in his stomach, which was nearly inverted by his struggles. I have seen the body of a frog completely divided through the middle by a reaping-hook, which at the same time cut off the right fore-leg, while the animal seemed perfectly unconcerned, and gave no indications of distress whatever, save some ineffectual attempts to leap away, which its mutilated members did not enable it to accomplish ; and in this condition continued as vigorous as ever for upwards of an hour, during which time I remained watching its motions ; and how long after I do not know, as I then left poor paddy to his fate.

Assuming, then, that a man, a horse, or a dog, could not possibly remain alive more than one minute if impaled through the whole extent of the body in the same manner as a worm is upon a hook, from the intensity of the agony alone, it follows as a matter of calculation that the degree of pain felt by a worm cannot be greater than one-sixtieth part of what would be endured by the former, since we find it is capable of retaining its vitality in this situation at least for one hour. The degree of pain, then, suffered by it must be comparatively insignificant.

Worms.

Voluminous lists of different kinds and species of worms are enumerated by different authors. But as many of them turn out to be the same worm in different stages of growth, or found in different situations, it would only be a waste of time and space to notice them all. The following list, however, will embrace those that are accessible and suitable for every possible occasion. Although every sort of worm or grub will be taken with more or less avidity by fish, yet it would be useless to describe baits which will be found more difficult to obtain than even the fish themselves, and too tender, perhaps, on the hook after we get them. It may, no doubt, happen that some varieties may be taken more freely than others, and I will take care to confine my observations to such as experience has proved to be the most tempting to the fish, the easiest to obtain, and the toughest and longest-lived upon the hook.

As a general rule, clear, well scoured middle-sized, or rather smallish worms will always be most freely taken; and those of a red or yellowish colour will find most favour with the fish; while the large ugly fellows, with dark blue or lead-coloured heads, will be regarded with a similar gastronomic feeling as a boiled boa-constrictor would be by a company at the "Star and Garter."

The first I shall notice is the *Lob, Dew, Twatchel,* or *Garden Worm.* It is found in two states—the young worm, without a knot in its body, and often called the red worm and squirrel-tail; and the old mature worm, with a thick knot or band a little above the centre of its length. The former is the best for the angler's purpose, and has a red head, a continuous wavy red streak down the back, and a broad, flat, yellowish tail. This worm is not only the commonest, but, when at full maturity, the largest of its class, occasionally attaining a length of one foot when fully extended. Those of two and a half and three inches in length form the best baits. They are commonly abundant in garden mould, or in any rich loamy soil containing a liberal quantity of decaying vegetable matter, and may be caught at night in any quantity by going stealthily over short grass meadows or garden grounds after a shower, with a lantern and candle. Numbers will be found feeding upon decaying vegetable matter over the surface, their bodies extended to their full length, while their tails remain within the mouths of their holes, to which they withdraw with the quickness of thought on the least

vibration being communicated to the earth; hence the necessity of the collector treading lightly as a passing spirit. It is only through feeling the earth quake by the footstep that they become sensible of the presence of an enemy, as they possess neither the organs of sight nor hearing, so that, if the worm-hunter only takes care to tread softly upon the bosom of his mother earth, he may gratify his taste for music at the same time by singing 'Excelsior' or the 'Hundred Pipers' at the top of his voice for anything the worms will care about it.

They may also be found in numbers under wet straw, logs of wood, or large stones that have lain some time. And where they abound they may easily be obtained by thrusting a spade or stout stick into the ground and shaking it, when all those within the circuit of the vibration will rise to the surface with the greatest precipitation, mistaking it for the heavings of their natural foe, the mole—an interesting and rather wonderful manifestation of the power of instinct in a creature so low in the scale of existence. In long-continued droughts, they are sometimes difficult to obtain, as they then retire deep into the subsoil, and can only be induced to rise by well wetting a portion of soil, where their castings show them to be plentiful, with a few buckets of water, and then covering it over with a layer of damp straw. In a day or two they will be found just beneath the surface; or they may be forced to leave their holes by pouring into them a few buckets full of salt and water, or an infusion of walnut leaves or green hemp.

The *Red* or *Dung-Worm*, in my estimation, is the

best of any. It is smooth, without a knot, of moderate size, and of a bright, clear, pink colour, with a red head. It is commonly found in rotten dung of any kind, and is a particular favourite with all worm-taking fish.

The *Brandling* is a favourite with most anglers, but the objection I have to it is, that it is very soft and tender, and speedily dies and becomes broken on the hook, requiring to be very frequently renewed. This worm is annulated from head to tail with alternate rings of red and dusky yellow, which are dark near the head, and gradually become paler towards the tail. It has rather a rank and disagreeable smell, on which property I have no doubt its value as a bait chiefly depends, as the taint it communicates to the water will be more readily felt by the fish than that of less odorous worms. It is found in old heaps of horse or cow dung that have lain for some time undisturbed, in old rotten thatch, or tan, etc. This worm may be used in the fresh state without any scouring, but they are greatly toughened and improved by being well dusted over with Armenian bole, and kept a few days in moss mixed with the same before being used. When kept for any length of time in moss, they should be fed by dropping a spoonful of new milk or cream upon it every day, which will prevent their swelling at the knot, which is a certain precursor of their death.

The *Cow-dung Bob* is found below dried flakes of cow's dung in grass meadows, and is a good bait. This worm has a shining dark brown head, and a flat tail. It may be used fresh, but is best scoured.

The *Tag* or *Gilt Tail* is of a pale flesh colour, all but about half an inch of the end of the tail, which is of a golden yellow. This worm is both paler and larger than the last mentioned, and is knotted in the middle. It is found most commonly on marled land, or on meadows after a shower in the morning. This is said to be an excellent bait for trout in waters discoloured by rain, but it will not endure much scouring.

The *Marl* or *White Worm* is found chiefly in marl or clayey soil. The body is of a very pale pink colour, and knotted with a band of the same colour as the head, which is of a pinkish white. It is a tough good bait, and shows well in the water.

The *Marsh Worm* is of a middle size and knotted, of a bluish cast, and so tender that it requires long scouring before use, but is then a lively good bait. They may be found sticking about the roots of flags, docks, and other aquatic plants, in marshy ground by the side of rivers, etc. They may be induced to rise to the surface by treading the ground well backwards and forwards with the feet close together.

By attention to the proper method of scouring and preparing worms, they are rendered much tougher, longer-lived upon the hook, and more clear and transparent in their skins, and present altogether a much more tempting appearance than when newly obtained from the earth.

To scour worms for immediate use, carefully select such as are of a proper size, rejecting all that are damaged or diseased, and then wash them for a few

minutes in water, to remove all earth and superabundant mucus. Then place them in a dish containing a parcel of horse or cow hair clipped into lengths of six inches, and let them remain among the hair a couple of hours, when they will have cleaned themselves from all extraneous filth. Next dust them over with pulverised bole Armenian, to which a very little alum has been added, which will toughen their skins wonderfully in a short time, and finally put them in a bag amongst moss which has been previously well dusted with the same mixture. They will thus be rendered tough and clean in a few hours, and fit for use.

But when it is intended to preserve them for some time, and they are not immediately wanted, it will be better to allow them to scour themselves more leisurely, in the following manner:—After selecting and washing them as above directed, take an earthen jar with a wide mouth, and fill it with well-washed soft moss (the white or pink coloured moss which grows on open heaths is the best, and next to that the common sphagnum), sprinkled well with powdered bole Armenian (which is a friable kind of clay, strongly impregnated with hematite, or red peroxide of iron, and of an astringent nature), previous to its being placed in the jar. Press the moss well down, then place the worms upon the top, and tie a piece of coarse canvas or cloth of any description over them, taking care to puncture it so as to admit plenty of air. If the moss is either renewed or taken out and well washed once a week, and the worms placed in a cool place, such as the floor of a cellar, and all the

sickly or diseased ones at once removed as soon as detected, they may be preserved lively and well for several weeks or even months. I have preserved them in this manner from the beginning of March to the middle of June. In this way they will shortly become tough as pieces of gimp from the astringency of the bole. The first indications of disease in the worms are a swelling of the band, and the appearance of contractions and knots here and there in their bodies ; and all such as exhibit those symptoms must be immediately removed, otherwise the whole will speedily become infected ; as cholera or dysentery, or even typhus itself, are not more contagious amongst the human species, than disease is amongst worms.

The rationale of the above process is simply this :— The mechanical action of the fibres of the moss upon the bodies of the worms as they insinuate themselves through it, cleans their skins from all superabundant mucus, and their interior from intestinal matter ; while the skin, by being divested of a certain portion of its redundant moisture, becomes very much toughened and more transparent in texture, to accomplish which the astringency of the bole Armenian very materially assists. This is the true theory concerning the scouring of worms—a process which not only improves their appearance and renders them vastly more attractive to the fish, but also enables them to live a much longer time in the water, without breaking upon the hook and exposing it ;—points of the utmost importance, as the more lively the worm is in the water, and the more com-

pletely the hook is concealed, the better will be the angler's chance of success. Should any simpleton offer a dead worm to the fish in a daintily-fed river, he may wait with all the patience of a second Job for a nibble, but I fear his perseverance will be without its reward.

As it may be of considerable importance to be able to preserve a stock of worms over winter, to try one's luck in some of the milder days of early spring, when the maiden strains of the storm-cock first salute the ear, and whisper that even now some early revived finsters may be tempted from their retirement; and when as yet the worm, in his natural haunts, lies hybernating in his winter repose far down in the earth, beyond the reach of either spade or mattock; I may mention that worms may be preserved for any length of time, either in summer or winter, by placing them in a wooden box filled with a mixture of rich soil and half-rotten leaves or bark, when a few may be taken out and scoured in moss as they are wanted.

Worm Rod and Tackle.

The Rod for worm-fishing may be similar to that recommended for minnow-spinning, and both longer and stronger than the fly-rod. Nothing confers a greater advantage upon the bait-fisher than a long and powerful rod; as it enables him not only to keep out of view of the fish—a matter of the first importance—but also to command a much greater extent of water. The reel-line must also be considerably stouter than that used for fly,

in order to prevent its being broken or injured in cases where it is indispensable to break or tear away the gut-line by main force, when it is irrevocably fastened in roots or rubbish at the bottom—one of the disagreeables of worm-fishing which will frequently occur.

THE GUT-LINE or hook-cast should consist of one and a half or two yards of the best round gut, thick and strong at the top, and gradually tapering off as fine as a hair towards the hook.

THE HOOKS ought to be of the straight round bend kind, of the best tempered fine wire, such as Phillip's and Adlington's, which are both of an excellent shape and of the finest material. They ought also to be *rather small than large*, in proportion to the size of the worm used. I have frequently observed that when a rather thin worm is used upon a full-sized thick-wired hook, the fish easily detect the latter with their teeth, and instantly relinquish the bait as soon as they mouth it. In such a case, the angler will be perpetually tantalised by nibbles, and will have no end of worms cut to fragments, but very few captures. I was long at a loss to account for this occasional coyness on the part of the fish, and wondered why they refused to gorge the bait after mouthing it so freely, until I ultimately discovered this to be the cause, when I at once provided against it by using either finer hooks or worms of a larger size, after which the nibbles generally resulted in the bait being swallowed and the fish brought to land.

Twisted hooks—such as the sneck bend, Kendal, and Limerick—are sometimes preferred, and no doubt they

will seldomer miss their hold than the plain round bend, but they will be found much more difficult to bait and more apt to break and injure the worm when in the water—both considerable drawbacks. All the hooks used in worm-fishing should have their shanks shortened, by which their presence will not be so easily detected, and the worm will appear much more natural, than in the constrained and unyielding shape it assumes, when skewered upon a long-shanked hook ; hence, they will be more freely taken in all waters where the fish have a considerable personal acquaintance with the angling fraternity. And in what part of the world are they now strangers?—unless it be in the sands of Sahara, or among the craters of Owyhee. Even the Esquimaux, shivering amid the icebergs of the pole, are arrant fishers. And few indeed of the fresh-water denizens of the British Isles have not felt the sting of a minnow, worm, or fly, at one period of their lives, if they have lived long enough to attain to the years of discretion.

CHAPTER IX.

WORM-FISHING.

Seasons and States of Weather for Worm-Fishing—Different Methods—Proper Application of Sinkers—How to bait the Hook—Own Method of proceeding to work—Way in which Trout seize a Worm—When to strike—Tree caught instead of a Pike—Spinning the Worm—How to release a Fouled Line—Drag-hook and Clearing-Ring.

ALTHOUGH the worm, in skilful hands, may be successfully used all day long, and all the year round, it is peculiarly adapted to the early spring, before the appearance of flies on the water tempts the fish to leave the bottom; then it must be reckoned the sheet-anchor of the angler's hopes. Again, towards the end of summer, after the majority of the various tribes of insects, which formed the chief food of the fish during the height of the season, have disappeared; or when they seem to be satiated with an excess of such diet, and resort again to bottom food; it may be used with advantage all day long. Under ordinary circumstances, during the height of summer, the worm is used with the best results, early in the morning, from daybreak to six o'clock; and again in the evening, from sunset to darkness, in the rapids and shallows. But a peculiarly favourable time to turn this bait to account, is when a

freshet is descending a river, shortly after it begins to rise, and before the waters become too much swollen. The trout will then be found to take it with the greatest avidity, especially if the water is a little muddy, as it is then that multitudes of worms, slugs, caterpillars, caddies, and such-like creatures, are washed down by the rising waters, and for which the fish will be intently on the watch. This is the harvest-time of the worm-fisher, who may also use a second hook, attached to the line a yard above the extremity, as a dropper, baited with a slug or caterpillar, with advantage. And if he plies his vocation at this time in the shallow eddies and scours,—the mouths of ditches and small feeders,—by the sides and at the head of the streams, where the current is not too violent, it will not be my fault if he does not succeed to his heart's content, and return home with a *heavy basket.*

The following will be found an excellent method to pursue during a full state of the water, when it is rising, and during the height of the flood (if not too violent). At this time, use the worm, slug, caterpillar, or grubs of any kind, all of which will be greedily taken. When it has subsided a little, and the waters clear off to a brownish, or dilute porter colour, spin the minnow; and when the river has nearly resumed its ordinary state, a rather large and gaudy fly (red with gold twist, or an orange body) will be found to do execution among large trout.

Besides the above seasons and conditions of water, the professed worm-fisher will often use it with deadly

effect in severe and long-continued droughts, in the brightest sunshine, and in the calmest weather, when the waters are too low and clear to admit of any other method of fishing whatever. At this time, the majority of the fish, especially the larger ones, retire into the deepest pools in the neighbourhood, where they snugly shelter themselves from the rays of the sun, underneath stones, bushes, roots, holes in the banks, or any other objects, during the day, and are often at such times very scantily fed and hungry. The professional angler then steals forth, armed with a long rod of sixteen feet, and a line of the very finest gut, a small hook, and some well-scoured small worms. The sun is probably shining overhead with a dazzling blaze that threatens to scorch everything off the face of the earth, without a cloud in the heavens to afford even a passing shadow to the landscape below; the half dried-up river, contracted into the dimensions of a tiny rivulet, scarce retaining sufficient water to cover its inhabitants, and dribbling through the gravel and stones, only halting here and there to recover and collect its scattered waters in an occasional pool, whose unruffled surface shines like a mirror, and whose depths are as pellucid as the purest crystal. In this seemingly hopeless state of things, our hero, nothing daunted, wends his way to the river-side. Having adjusted his bait, he—cautiously approaching the bank, probably on his hands and knees the better to keep out of sight, at the same time keeping his face towards the sun, that no shadow of either rod or line may fall upon the water—jerks his worm over the

bank edge, without exposing even the tip of his rod. The line is leaded with perhaps a single pellet of shot, to keep the bait near the bottom, if the strength and depth of the current requires it; if not, it is all the better without it. The worm is then allowed to roll along with the current, into the interstices between stones, under projecting banks, below bushes, and is guided into any situation where the sportsman's knowledge of the habits of his game leads him to suppose a fish may be quietly ensconced. The apparition of a fine clear worm thus innocently rolling past the nose of a hungry *member of Finsbury* is too strong a temptation for fish-flesh to resist. Quiver goes a tail—the line is suddenly tugged—bob goes the tip of the rod; and, after a short struggle, a fine walloping fellow of three-quarters of a pound is "louping alive" on the bank. After a smart tap on the cranium, given merely as a hint to be quiet, and not to alarm his neighbours with his playfulness, he is quickly transferred to the creel.

To an adept, this kind of fishing in clear waters will often afford excellent sport; but I need scarcely say that it requires both skill and caution to prosecute it with success, and a bungler had better leave it alone, otherwise his vocabulary of *religious* terms will soon be brought into requisition, and thus render him liable to a catechising, if not to a downright castigation, should any of his spiritual superiors be within earshot; while it can only be followed with any prospect of sport in waters where the banks are moderately high, and rise close by the margin of the water, and where currents set under-

neath them; or where overhanging bushes, rocks, and large stones, offer secure retreats for the fish, as well as screens behind which the angler can keep himself completely concealed from view; but in shallow streams, with flat, shelving shores, the attempt is vain.

I have often obtained a fine dish of trout by adopting this method in the little *becks* of the Cheviots, in the neighbourhood of Wooler, in severe droughts in the middle of summer when it would have been an impossibility to procure them by any other method—at least during the day. My plan of procedure was as follows:—Armed with a sixteen-feet rod, a fine hook, and tackle without any sinkers, I stood as far off as possible, and contrived to stealthily drop a well-scoured small worm over the bank edge, in places where it overhung the water, and where the current had excavated a hollow cavity underneath, deep enough to hold a trout. I then allowed the current to roll the bait into and past all such places, in advance of the rod and the remainder of the line, both of which, as well as myself, I took the utmost care to conceal as completely as practicable. I may remark that, in fishing those small runners, it is indispensable that the worm should sail down the current *in advance* of the line; and that the latter be kept sufficiently taut to prevent any slack being carried down before the bait, as it would undoubtedly alarm the fish, and prevent them from taking it. While the angler must recollect, that in thus fishing with a tight line, he must instantly slacken it the moment he feels a tug, as it is seldom indeed that a trout fairly closes his jaws on

a worm the first time he seizes it, but merely gives it a shake, and immediately relinquishes his hold; when, if nothing alarms him, he returns again to the charge within a second or two, and gorges it the next time. On this second indication of his interference with the bait, he may be secured by a smart though gentle twitch of the wrist.

Proceeding in the above manner, I have on several occasions succeeded in tucking out from two to four dozen fine trout, even from rivulets which in many places were not more than eighteen inches broad at the surface.

Although this angling on a small scale requires more patience and attention to minutiæ of manipulation than will be agreeable to a go-ahead sportsman, yet, where small burns are within reach, they may enable the devoted angler to fill up a blank hour when sport in the ordinary manner is not to be had, besides furnishing him with a delicious dish of fish, caught in a novel way, when they could perhaps be obtained by no other legitimate means.

In sluggish muddy waters, too opaque for the efficient use of the fly, the worm also will be the only standard bait besides the minnow, which can be used on all occasions with any certainty of success.

Weather for Worm-Fishing.

Fish, no doubt, are materially influenced by atmospheric causes to feed either at the top or the bottom of

the water; and the fly and worm will be in request according as one meteoric influence or another prevails. Weather peculiarly favourable to worm-fishing, I consider to be a few hours after the clearing up of a moderate mild rain in spring or summer, when the day is warm and gloomy, with scarcely a breath of wind astir, when the air swarms with gnats and other insects, and the odour of floral and vegetable exhalations renders it almost oppressive to the senses. This is a time when the worm will be more than ordinarily acceptable; for, in expectation of the waters rising and bearing down fresh stores of food, they are all on the *qui vive*, and eagerly roaming in search of every description of bottom bait. Their appetites, too, seem to be so extraordinarily excited at this time, that they gorge almost to bursting with every edible substance they meet with, so as to render them sick and lethargic for many days after. To "make hay while the sun shines" seems to be their motto on such an occasion, and they very wisely embrace the opportunity of feasting to repletion on such delicacies as worms, grubs, and slugs, when fortune brings them within reach, which is only during a freshet in the river.

Method of Fishing with Worm.

Of the various methods of angling with worm (each having its own advocates), I shall now notice a few. One sportsman leads his line heavily, and, casting the bait into a likely situation, either waits patiently, rod in hand, until fortune shall bring to it some roaming

fish; or otherwise, perhaps he may lay it down upon the bank, and quietly seating himself by its side, feel for his tobacco-pouch, and enjoy his *otium cum dignitate*, until a tug at the line announces that some subaqueous stranger demands an interview. I have seen an avaricious old gentleman (a retired tradesman, of course) thus busily superintending the operations of half a dozen rods; but his imagination was roaming more in the direction of the frying-pan than the sport. Another, donning his float and line, betakes himself to some smooth and retired deep, and attentively watches it glide along, until the long-looked-for bob gives notice, telegraph fashion, that an aquatic friend tugs his forelock and bids him good-morning. A third, resolutely resolved to follow nature as his only guide, allows his bait to be swept swiftly along by the current, without either sinkers or other paraphernalia, stubbornly maintaining that it is quite a work of supererogation on the part of the angler to attempt to modify in any way the manner in which a worm is carried down a stream in a state of nature, or to endeavour to guide it into any parts of the water other than where the natural flow of the current will convey it; assuming that instinct will unerringly direct the fish to lie in wait in such places for their food. And doubtless the opinions of this philosophical practitioner are entitled to a considerable degree of respect, as in small clear rivers it is *the method par excellence*. A fourth burly-faced gentleman, apparently suffering from an extra amount of internal caloric, and in diametric opposition to every rule of prudence and propriety, will

persist in plodding straight up the middle of the river (would it were deep enough!), regardless of ague, rheumatism, and the sport of his neighbours, and continues casting his bait as far before him up stream as a long powerful rod can throw it.

With these various methods, except the last, I find no fault. Every man in this free country has a right to follow his own sport as seemeth unto him best, so long as the liberty of his fellow-subjects is not interfered with. But to the procedure of the eccentric individual last mentioned I respectfully demur. In the first place, I would remind him that, besides the imminent risk he incurs of catching some mortal disease, if not of getting drowned outright, he is unintentionally, but nevertheless effectually, guarding his bait from either attack or injury by his own sturdy legs and burly person, while his rod and its shadow together, will be regarded by the fishy tribes as one of the "signs" foretold in the Apocalypse. In the second place, I would suggest that it is neither generous nor courteous towards his brother sportsmen, thus to terrify into hysterics the whole inhabitants of a river, by the strange apparition of a hippopotamus stalking deliberately up the stream upon its hind legs, and glaring and grinning from right to left with demoniac grimaces. But let him only keep his feet on *terra firma*, and he may continue to fish, even back-side foremost if he prefers it. I wish him luck, but must tell him it is the wrong way to go to work.

Turning our attention next to the lazy gentleman seated on the bank enjoying his pipe, and his heavily-

loaded line lying motionless exactly in the spot where it was cast, it will require no sage to predict that he will be more indebted to good luck than skill, if he ever takes a fish, unless the water is populous indeed, and the fish as sharply on the look-out for food as a lawyer is for clients.

In regard to the float: in deep, muddy, still waters, in ponds, or in perch-fishing, it may be used with evident advantage to suspend the bait at a proper distance from the bottom, and to keep it in motion, and from lying dead upon the mud; but in all clear, shallow, or swift-running streams, it is worse than useless, and few indeed of our northern anglers ever saw one.

Pellet Sinkers.

The bait, once in the water, must be made to swim as near to the bottom as possible, yet it must not be suffered to touch or rest there, but be kept rolling gently along, at a distance of three or four inches from it, by the flow of the current. To effect this in different depths of water and velocities of current, much judgment is required in the due loading of the line with sinkers, according to the varying depth and rapidity of the same. In comparatively still water, perhaps no sinkers may be necessary,—the natural gravity of the hook and worm being alone sufficient—but where there is considerable depth, or any current exists, one, two, or more No. 4 shot pellets must be applied from nine to twelve inches from the hook, and about three quarters of an inch from each other, so as to avoid exciting any sus-

picion on the part of the fish. In applying sinkers, it is better to use several small shot pellets, than one or two very large ones ; as by adding or removing one or two of the small shots as occasion requires, the weight on the line can be more readily and accurately adjusted to the force of the current, than when large ones are used. And I should advise no one to grudge the trouble of altering the number of his sinkers now and then, as he falls in with differences in the depth and rapidity of the stream, if the water be likely, and the fish taking. This can be accomplished in a few seconds, by inserting the edge of a knife into the split of the shot, and pressing it open ; and one or two can be as easily applied again when required. I need scarcely say that it will be of little avail to stand like Patience on a monument, over a still deep, with a line shotted heavy enough for rapid streams, when it will only lie uselessly buried in the mud at the bottom, perhaps till the end of time, before a chance fish come that way. On the other hand, to fish a strong stream with only one or two pellets, and allow the bait to be carried high over the heads of the fish with the velocity of greased lightning, will be attended with the same result. I can assure the sportsman that any little trouble he may incur in this respect will be amply rewarded, as in many well-fed rivers the fish are too independent and indolent to stir six inches from the spot they lie upon for the most tempting bait that can be offered to them ; hence the only chance in such cases is to cause the bait to roll almost into their very jaws, or as near to them as possible.

In a full state of the water, I have often found it an advantage to append a second smaller-sized hook to the line as a dropper, about three feet above the end one, tied either to a fine white bristle, or a piece of gut three inches long. This, I think, gives two chances for one; and, so far as my own experience goes, the dropper will take quite as many fish as the main hook. I recollect of a large trout one day gorging both hooks. Besides, this admits of two different kinds of bait being used if thought proper. The end hook may be baited with worm, and the upper with a slug, caterpillar, or caddie.

Baiting the Hook.

To do this neatly, requires a little tact and care, and simple as it seems, I have seen but few perform it well. Proceed thus:—Having smeared the fore-finger and thumb of both hands with sand, or dry earth (if none is at hand some should be carried in the waistcoat pocket), take the worm and insert the point of the hook in at its mouth, and slide the remainder of the body dexterously over the bend, and along the gut, until the barb reaches within half an inch of the tail, which must be left to wriggle about; and the more lively its motions are, the more readily will the bait be taken. As soon as ever you perceive that the worm is dead, instantly remove it, and substitute a fresh one; as in all rivers where the trout are well fed and shy, and therefore little inferior as epicures to the Roman Emperor, whose favourite dish was the brains of singing birds, you will incur about

an equal chance of taking a dead fish with a living worm, as a living fish with a dead worm :—in all such rivers, the fish prefer fresh meat to carrion.

In sliding the worm over the hook, care must be taken that its point is not allowed to protrude through and wound the bait, as it will then become quickly mutilated and exhausted in the water ; and I defy the most careful operator to avoid this from frequently occurring during the writhings of the worm, unless his fingers are well rubbed over with sand, which will enable him to keep it completely under control. This may seem a very simple matter to notice, but I am convinced that no worm-fisher will ever succeed without attending to it ; and it is principally a superior knowledge of these little minutiæ, that distinguishes the accomplished angler from the bungler.

If the worms are small in size, it will be better to use two instead of one, when the operator must proceed as follows :—Enter the point of the hook half an inch below the head of the first worm, and bring it out within half an inch of the tail ; then slip it entirely over the hook, and slide it so far along the gut for the present, to admit of the application of the second ; which is to be accomplished by inserting the hook into it half an inch above the tail, and running it over the bend of the hook till the point is within half an inch of the head, when the first worm is slipped down upon it. The free extremities, left wriggling about, will be found very tempting. This is an excellent plan if small worms are used upon a fine small hook.

Another method, said to be successful in rivers that are much fished, in which the bait is presented in a somewhat different shape from the rounded segment, which experience may have taught some of the knowing coves among the finny fraternity, usually contains within it a substance, not only rather too pungent to be palatable, but at the same time too hard to digest, is as follows :—Two moderate sized round bend fly-hooks are tied together back to back, and the point of one of them, inserted about a quarter of an inch below the head of the worm (which is allowed to hang loose), and buried in its body as far as the whipping will permit (the point of the hook pointing towards the head) ; the remainder of the worm is then coiled round the armature of the hooks two or three times, so as completely to conceal them from view, and the barb of the other hook inserted into it a little above the tail (and pointing towards its extremity), a quarter of an inch of which is allowed to hang free, similar to the other extremity. A worm applied to the hooks in this manner closely resembles those sometimes found coiled together in knots in the soil, and if allowed to roll gently over a gravelly scour into a pool or eddy below, with the free extremities writhing about, it will be almost irresistible.

The last plan I shall mention, is a fine small fly-hook whipped to a length of very fine gut ; when it is to be inserted into the tail of the worm, and brought out again a quarter of an inch above, and reinserted and buried within its body near to the middle ; the extreme point only being allowed to protrude through the side. A worm

thus applied retains its natural shape in the water, and is free to writhe and twist about, as if it had no connection whatever with either gut or steel, and will be found to throw the most wary fish off their guard.

Casting.

Having now got all the tackle arranged, and the hooks baited according to one or other of the methods described, the next thing that requires attention will be the proper method of using them.

On arriving at the scene of action, draw out as much line as will extend a yard or so beyond the length of the rod—in fact such a length of line as can be conveniently cast and managed with ease. Having next adjusted the sinkers, and put on the bait, proceed to the top of the shallow above the stream (I always fish down the stream, and would recommend every sane man to do the same), and, using every precaution to keep as far from the water and as perfectly concealed from view as possible, cast or rather swing the bait up and obliquely across the river, endeavouring to make it alight quietly in the water. Then following it down stream a few yards or so, until it has swept its allotted space of water, draw it close to the edge before lifting it out, so as to cause no disturbance. Again stepping a few yards upwards, repeat the cast; each time commencing a few paces lower down than the beginning of the previous one. Endeavour also to guide the bait into all the eddies and shallows by the sides of the stream,

under bushes, banks, past large stones, piles, sods of earth, etc., and in fine, into every favourite haunt of trout. In deep sluggish rivers, the tail of a sand-bed, or a little below the mouth of a rivulet or feeder, are likely spots. All the while, the rod must be held low, and the tip as near the shore as convenient, in order to prevent scaring the fish. As in every method adopted for the capture of the salmonidæ, the golden rule is, to keep not only yourself, but every portion of your tackle and implements, completely concealed from view. If he disregards this it will be a hungry day with the sportsman, should his dinner depend upon the contents of his creel.

I advise the first cast to be tried in the rapid at the head of the stream, because in most cases those fish intent upon worms or other ground-baits, will commonly take up a position either in the rapid at the head of the stream, or in the eddy by its side, in order to seize upon whatever may be brought down by the current; while those on the look-out for insects upon the surface, will be more frequently disposed in the quieter waters near the foot of the pool. It will be well also at each fresh cast or two to examine the bait, and see that the point of the hook is not exposed; as all fish regard a worm with such a dragon-like appendage to its tail, much in the same light as a nervous individual would regard the near proximity of a mad dog, a *cobra de capello*, or a maniac with a loaded musket.

Striking.

Trout seem to treat a worm differently in rapids and still waters. In the former, they usually seize and swallow it at once, as if aware that if not immediately secured, it would be swiftly carried down by the current and lost; while in the latter, they generally lay hold of it first by one of the extremities, give it a smart shake, relinquish it for a second or two, then seize it again and gorge it; and if in a shy mood, they will mouth it half a dozen times or more, before they do so; or, perhaps, finally leave it altogether. That this is their general habit, even when hungry and greedily on the feed, I have proved on several occasions, by dropping worms over a bridge into a deep still pool below, swarming with ill-fed hungry trout; and in every instance, without an exception, they rushed at it the moment it reached the surface of the water, and seizing it by one of the extremities, shook it violently, then quitted it for an instant as if to see that all was right, when they again seized and swallowed it.

In fishing, therefore, in a rapid, the fish will most likely gorge the bait the moment he lays hold of it; and the first indication of his presence will be the stoppage of the line, when the hook must be instantly fixed, by a smart but gentle twitch. The stroke had better not be a too hasty one, as the cause of the stoppage of the line will not always turn out to be a fish, as many have found to their disappointment. It may

prove to be a snag, a submerged furze-bush, or a dead dog; but this will be readily ascertained on tightening the line, as those species of game are not in the habit of gyrating about in the water, in the same lively manner as an offended trout, but doggedly and stubbornly persist in retaining their position at the bottom, in spite of impatient tugs and sinister blessings. These mulish fraternity, too, take an especial delight in smashing the rods and tackle of all gentlemen of sanguine temperament, who assail them too rudely. Civility is said to be due to every one, and my sporting friends will agree with me, that the more gently even a sunken log is dealt with the better.

On the other hand, in fishing a still pool the presence of a fish will be indicated by the line being once or twice sharply tugged, and then probably being run off with across the water for some distance. In this case, always wait until the second or third tug is given before striking, as the bait will be several times mouthed before it is gorged, as already explained, and it will even be the safer practice to delay striking until the line decidedly begins to be drawn steadily away,—when the fatal twitch may be given, and the fish will be yours. More fish are lost in still pools by fiery-tempered young men than is generally known! In much-fished rivers, where the trout are unusually wary and suspicious. the above directions must be strictly followed, if the sportsman desires success. I have seen many otherwise good worm-fishers lose dozens of fish for every one they succeeded in landing, by striking the moment they per-

ceived the first attack on the bait, before time was given to gorge it ;—and who, on abandoning that plan for the one recommended above, were liberally rewarded with heavy baskets.

Nevertheless, I have heard some sportsmen contend, that in worm-fishing the line ought always to be kept strict, and the fish struck the moment the bait was mouthed. But I think the fallacy of such a practice will be readily apparent, when we consider that long before the presence of a fish can be telegraphed through sixteen or eighteen feet of loose line, and answered again by a stroke of the rod, it has voted its supplies yea or nay.

In either case, what will be the use of striking with such precipitation? In the latter, the fish will have indignantly ejected the bait from his jaws, long before the stroke of the rod can reach him, and the angler will only drag to land the mangled remains of a worm instead of a trout ; while, if he has happened to gorge it on the first assault, which will happen but rarely indeed, there can be no necessity for hurry in the matter, as the hook will be quietly awaiting an intimation from its owner to plunge its barb into its throat, and be past the power of ejection. And the most likely thing to result from such a hasty practice will be, that the impetuous sportsman will, in nine cases out of ten, jerk the worm away from the fish's nose, just as he was about to return and appropriate it for better or for worse ; and nothing but disappointment will accrue to both of the parties concerned, from the too hasty action of the principal actor in the drama :—the fish will be un-

expectedly deprived of his dinner, and the angler will be minus his fish.

It will doubtless have happened to every experienced bait angler, that on certain days the fish are unusually shy and more disposed to play with the bait than swallow it; when they will perpetually torment him by mangling and rejecting the worm or nipping off its free extremity, so as to render frequent renewals necessary. It is when the trout are in this capricious mood, that the fly-hook tackle described at page 186 will be found the most efficient to use; and if an extra degree of forbearance is exercised in striking, the angler's efforts may still be crowned with success. A skilful fisher of my acquaintance always made it a practice, on such an occasion, to allow the line to be three times tugged, and he then deliberately counted—one—two—three—before he gave the stroke, and he seldom failed to capture a goodly number of those cautious gentry.

Before taking leave of this part of the subject, I shall mention a method of manœuvring the worm, invented and successfully adopted by my son, who, though only a boy of thirteen years of age, takes second rank to few of his seniors, either as regards the management of the fly or the worm, or the successful playing of a large trout when he gets hold of one. It consists simply in playing the worm across the water precisely as in minnow-spinning, with the line pretty heavily shotted. Try the plan, good reader, and you will not be disappointed.

Snags.

One of the most unpleasant drawbacks the worm-fisher has to contend with, is the frequency with which the hook gets entangled upon snags, roots, and other impediments at the bottom of the water, giving rise to a perpetual succession of lost hooks and broken lines, besides taxing the sportsman's patience sometimes beyond endurance, and too often relieved by a volley of most unparliamentary language.

Such mishaps are of very frequent occurrence in some rivers, especially those whose course lies through wooded districts, and which consequently get encumbered with the carcases of uprooted trees brought down by every flood, forming a constant source of annoyance to every uninitiated sportsman. I recollect a friend of mine, while trolling for pike one day in a deep part of the Till (a river much incommoded by sunken snags in some parts), accidentally struck his hooks into the stump of a sunken tree, and supposing his tackle to be arrested by the jaws of a pike, waited anxiously, after the orthodox eight minutes had elapsed, for some indication of the bait being gorged, which is usually announced by the fish shifting his position on feeling the barbs of the hooks tickle his stomach. But no, the line remained motionless; and my friend, being convinced that nothing but the fangs of a sixteen-pounder retained it in durance, was afraid to pull, in case he should cause him to abandon it, and resolved to

give him ten minutes more. When I happened to come forward and divine the true state of matters, he was advised to try his line gently, when to his mortification he found his tackle irrecoverably fixed in the body of a huge tree. And as it was impossible to release it by hand on account of the depth of the river, he was reluctantly obliged to break the reel line, and to abandon a very complete set of gorge-tackle, gimp traces, swivels, belly-lead, and all.

Assistants in Difficulties.

The Clearing-Ring and Drag-Hook.

In most of the rapid gravelly streams on the Borders, where the bed of the river is free from everything capable of entangling a hook, except an occasional dot of turf crumbled from the banks, or a solitary weir, no such drawback exists ; and the same identical hook and line may last through many days' fishing with proper care. Worm-fishing, as indeed every other kind of angling in such rivers, is pleasant enough sport when the trout are taking well. But even at the worst, it must be remembered that piscatorial ingenuity has contrived one or two useful implements, which may be had recourse to when the line gets fouled upon any obstacle at the bottom of the river. These are the clearing-ring and drag-hook, which ought to form part of the equipment of every bait-fisher ; especially whenever he turns out to such waters as may be likely to call them into requisition. Nevertheless, the fouling of the line

may be to a great extent avoided in ordinary rivers, by care in steering it clear of all suspicious-looking places, such as weed-beds, snags, turfs, and other impediments. But in spite of every precaution, should a lurking stump or weed entangle the hook, I have found it the best plan to proceed thus :—Draw more line off the reel, lay down the rod, and reaching as far as possible, pull the line firmly but gradually, avoiding all sudden tugs, which will either snap it through, or strain it injuriously ; and if this does not release it, as in many cases it will, then give a few gentle though more decided tugs, and in most instances the hold will give way, and the hook be recovered. If in spite of all our efforts we should fail in accomplishing our object, then the only plan is to strip, take the water, and release it by hand ; or if this is impracticable, the line must be forcibly but steadily strained, until some part of the gut gives way. And as the finest lengths ought to be next the hook, the fracture will usually occur near to the latter, and the loss of gut be but trifling.

Should the angler be provided either with a clearing-ring or drag-hook, he may use them as follows :—

The Drag-Hook consists of three strong blunt-pointed iron hooks, placed back to back so as to form a triangle, having its shank weighted with lead, and a strong cord attached to it. It is thrown over and beyond any object to which the line may be fixed, when the hooks lay hold of it and drag it ashore ; but it is neither so portable nor efficient an implement, in my opinion, as the clearing-ring, unless it be in pike-trolling in weedy

waters, when it often happens that a fish will twist the line several times round a mass of weed, until it becomes so completely entangled, that neither tackle nor fish can be recovered without some such assistance.

The Clearing-Ring, as usually sold in shops, is a heavy iron ring of about an inch and a half in diameter, thicker at one side than the other, and having a hinge in the thick side, to open and permit of its being slipped on to the rod or line, and a clasp on the other, to secure it again when on. To a hole near the clasp a strong cord wound on a reel is attached. But the annexed Fig. 24 will show a much less costly and equally efficient contrivance which I am in the habit of using myself, and which any village blacksmith has skill enough to make. It consists, as will be seen, of an oblong iron ring, thick and heavy at one end, and furnished with an opening (*a*), at the other for the purpose of slipping it on the line, while a cord is attached to the part *b*.

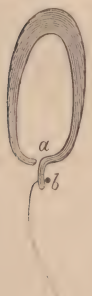

Fig. 24.
The Clearing-Ring.

In using this implement, just wind up the line upon the reel as tight as possible, and slip the ring on to the line through the opening (*a*); then elevate the rod as perpendicularly above the obstruction in the water as you can, when the ring will slide down the line to the hook; then pull the cord, and the hook will either be at once disengaged, or the line broken close by it. A rather knowing old gentleman of my acquaintance was in the

constant habit of inserting a length of gut weaker than the others, next the hook-link, in order to insure the fracture of the line only at that particular part, in case of it becoming irretrievably fouled.

Ground-Baits for Ponds, etc.

I am quite of opinion that ground-baits may be used with the most advantageous results, in ponds, or in deep sluggish rivers where the trout lie scattered indiscriminately; and where there are no alternate streams and pools, and where one part is just as likely to hold a fish as another. They will then unquestionably assist in drawing such fish as are on the look-out for food directly towards the angler, and consequently increase his chances of sport. The mode of proceeding with them, I would recommend to be as under. Let the sportsman choose a convenient part of the river, immediately above a reach of water likely to be well stocked with fish, and cast in from time to time a ball of the following ground-bait, which will be found peculiarly attractive to both trout and eels. It is thus made; mix together some ground malt, or wheat bran, with a little clay, and a quantity of worms chopped into small pieces, then add some sheep or bullock's blood, and knead the whole into a paste, sufficiently stiff to descend to the bottom of the water without breaking, yet loose enough to crumble gradually away a few minutes after it is immersed; the proper degree of tenacity is to be obtained by the use of more or less

clay ; and some believers in the peculiar predilection of fish for perfumes, recommend the incorporation of a little of the gum or oil of ivy berries with the mass, to render it more grateful to their nasal organs, but this part of the recipe may be dispensed with. The angler being furnished with a bag full of the above mixture, must cast a ball the size of a hen's egg into the water every ten minutes or a quarter of an hour, or whenever the fish cease to bite ; and proceed to angle with well-scoured worms, backwards and forwards, all over the reach of water below his ground-bait, but principally for a few yards immediately below it, where he will find the most fish congregated. If there are any trout in the neighbourhood, they will shortly be drawn towards the spot by the scent of the worms, and all the eels within a considerable distance will be speedily put on the alert, and follow the taint of the blood up the water like a pack of jackals, when there will be no lack of sport, especially if it be after three o'clock in the afternoon. Where the current is gentle, and the water above three feet in depth, the angler will find either a quill or a small cork float upon his line an advantage ; but should circumstances not admit of the float being used, the line must either be without sinkers at all, or otherwise weighted according to the depth and strength of the current.

CHAPTER X.

CAD-BAIT, MAGGOT-FISHING, ETC.

Cad-baits—The Piper Caddis—The Green and Grey Drake Caddies—Preservation of Caddies—Method of Angling with them—Maggots; Breeding of; Scouring of; Preservation of; Angling with—Feeding of Trout in Ponds—Caterpillars; Cabbage; Gooseberry—Wasp-grubs—Slugs—Screws—How to carry, the above Baits—Daniell's Method of Fishing with Caddies; with Caterpillars.

IN the droughts of summer, when the waters are low and other baits fail, caddies, grubs, and maggots may be used with much success, as the fish will then exist principally upon such food. They are especially adapted to still deep waters, when the trout seem completely satiated and disgusted with the superabundance of flies. These baits will doubtless be greedily taken in all rivers by almost every species of fresh-water fish; but they are used with most convenience in comparatively still running waters, as they are too tender to withstand the roughness of the current in swift rivers, unless they are only used in the eddies at the sides, and the still pools at the foot of streams.

Caddis, Caddies, or *Cad-baits,* are the nymphæ or larvæ of various species of aquatic insects, which, on issuing from the ovum, immediately commence to envelop themselves in artificial cases constructed of bits

of straw, rush, loose particles of sand and fine gravel, which they contrive in a very wonderful manner to cement together into cylindrical tubes by means of a glutinous secretion which exudes from their bodies for the purpose, in order to afford them protection during this helpless stage of their existence. Many of the cases of the smaller species are composed of particles of quartz sand, most artistically arranged so as to fit accurately to each other, and with the smooth facets towards the interior; and when viewed through a magnifying lens, the beautifully disposed different-coloured crystals present no mean imitation of an elaborate piece of mosaic work; while the interior of the tube is smooth and polished as glass, and lined by a coating of the same glutinous cement which holds the particles of sand together. Multitudes of these larvæ, of different species and sizes, and encrusted with various substances, may be found adhering to stones and stumps, or crawling about the bottom of every little rill and pool in the vicinity of a river, like animated pieces of straw, the head and fore-legs alone protruding from the orifices of their unique habitations.

The *Piper Caddis*, so called from the shape and material of which its case is composed, is the larva of the stone-fly, and the largest of the tribe; being about an inch in length, and forms one of the best angling baits among the caddies. This larva is very common in northern and Welsh streams, as well as the fly which produces it; and is said never to be found but where the bed of the river is either composed of limestone or large

pebbles. This I can believe, as it is the natural habit of the stone-fly to hide underneath the stones and large gravel by the river-side during the height of the day; hence its name of the *stone-fly*; and it only comes abroad on the wing, morning and evening. During their seasons, both the larva and the fly are very common, and in some districts abundant in the rough stony streams of Northumberland, Cumberland, Westmoreland, Scotland, and Wales; but in muddy rivers they are never seen. This larva gets the name of piper caddis from its hollow wooden case, closely resembling the drone reeds in a set of bagpipes. The fly generally appears in the perfect state towards the middle or end of April or beginning of May, according to the forwardness of the season and the earliness of the locality, and disappears again in July.

The larvæ of the *green* and *grey drakes* form their tubes of longitudinal pieces or slips of coarse straw, glued lengthways together, and are the next in size to that of the stone-fly, being three-quarters of an inch in length. This caddis usually abounds in all the rills and pools in the vicinity of rivers running over muddy or sandy bottoms, but seldom exists to any extent in the neighbourhood of swift stony streams, and is likewise a large, conspicuous, and excellent bait for most fish. The fly usually appears from the 20th or end of May to the middle of June, according to the locality—generally about the latter period in Northumberland.

Other species form their cases of short pieces of rush and stalks of grass, while others again use nothing but

particles of sand agglutinated together, as I have before mentioned; and from them issue the different tribes of duns, yellows, etc.—all purely aquatic flies, and lures of the first excellence for trout.

These caddies may easily be procured in their respective seasons before they assume the winged state —the piper caddis in April and the larvæ of the drakes in May—by searching the small rills and wet ditches which adjoin the rivers, when they will be found crawling about the bottom in their strange habitations among the stones and mud.

Preservation of Caddies.

They may be preserved for use in several different ways. One method is, to put them into a linen bag for five or six days, and dip it and its contents into water once a day and hang them up in a cool place; when they will become tough, yellow, and fitter for use than when first taken from the brook. Another method is, to put them into a thick woollen bag, along with some sand and gravel of the brook where they were found, and fill the bag with water twice a day, or oftener in warm weather, and allow the water to run out gradually of its own accord into a basin underneath. They may thus be kept for three weeks. A third plan is to keep them in an earthen pot with river water; or a bait-pan containing them, punched full of small holes in the top, may be placed at the bottom of a running brook, when they will live and thrive until transformed into

flies. A fourth method is to preserve them among wet moss in a woollen bag on a damp cellar floor; while the system recommended by the venerable patriarch of the angling fraternity, Walton himself, is perhaps as good as any:—"Construct a cylindrical case of fresh willow-bark by cutting off a willow-branch about one and a half or two inches in diameter and one foot in length; and then, by making a longitudinal incision its whole length, strip off the bark and sew its edges together so as to form a hollow tube, when one end must be stopped by a cork bung, and the other by tying a piece of gauze or linen cloth over it; and if the case is perforated with small holes with a red-hot wire, it is ready to receive the flies or caddies; when it must be laid out of doors among the grass every night, and they will continue to live in it until they come out flies."

The Water-Creeper is neither more nor less than the stone-fly after it has left the cad-case, and before its wings are perfectly developed; and as an angling bait it is quite equal to any of the afore-mentioned. This creature is of a darkish dun colour, about one inch in length, and is found among and under stones by the river-side, where the fly haunts, from the beginning to the end of April; and, in backward localities, even as late as the middle of May; when it may frequently be observed on stony rivers paddling its wingless and bulky carcase across a pool, like a miniature steamboat. It is to be preserved and angled with in the same manner as the stone-fly or grasshopper—in the bark case.

Method of Cad-Angling.

In angling with caddies, a long rod of sixteen or eighteen feet must be used, with a line of the finest gut, to which a small fly-hook is whipped, with a bit of hog's bristle included in the whipping, the point of which must stick out about half a tenth of an inch from the whipping, and point backwards towards the line, in order to prevent the bait from slipping off. In deep still waters a small quill-float may be used, with one or two No. 7 or 8 shot-pellets on the line, just sufficient to sink the bait, and retain it between mid-water and the bottom, or a few inches clear of the latter, as in worm-fishing, as well as to keep the float sitting upright in the water, and no more; while in small clear streams and shallow waters neither floats nor sinkers should be used. The manner of applying the caddies is to impale one of them, if a large one, or a couple of small ones upon the hook lengthways, so as completely to conceal both the hook and its whipping. If the piper caddis or that of the drake flies be used, one at a time will be sufficient, applied as above-directed; but if the smaller ones are selected, the most tempting method will be, first to draw one lengthways right over the shank of the hook, so as completely to conceal the whipping; then transfix another crossways by the middle; and lastly enter the point of the hook just below the head of a third, and insert it as far as the bend, when it will rest against the one fixed crossways. With small-sized caddies, grubs, or maggots, this is undoubtedly the most effi-

cient and tempting method of baiting that can be adopted. It ought to be recollected that in all dealings with cad-baits, they must be very tenderly handled, as they are soft, tender, and easily demolished and rendered useless.

Having fixed the float so that the bait may sink to within six inches of the bottom (as most of the large bottom-feeding trout at this season, and in such weather, will be lying listlessly on the sandbeds, on the watch for such edibles being brought down by the current), drop in the caddies over hollow banks, between and by the margin of weed-beds, and in any snug and retired spots likely to harbour a fish. In a streamy river, the eddies at the sides of the stream and the point where two currents meet, or the boils at their feet, will be the most likely places ; and if the sportsman is careful to keep his own person out of sight, he may take trout with cad-baits when all others will be disregarded.

Maggots.

Maggots may be easily bred by placing a piece of bullock's liver, a small fish, or any dead animal matter, in an earthen dish, and exposing it in the haunts of the blow-fly, when in a few hours young maggots will be deposited. After they attain their full size, which they will do in a day or two, put them into a mixture of oat-meal and bran (bran alone is too dry), and in a couple of days they will assume a yellowish cast, and be considerably tougher than when fresh, while they will by this means be scoured from any adhering filth or

disgusting odour, and be much pleasanter to handle. In about four days more, or six days in all from their attaining their full development, they become hard, change their colour to a pale red, and soon after come forth as flies. Another plan is to suspend some animal matter on the branch of a tree, over a box or dish containing earth or clay to receive them as they fall; but as numbers of them fall before they attain their full growth, the former is the better method for obtaining fine full-sized gentles. A better plan than either, is to scarify a piece of liver deeply, and suspend it on the branch of a tree for three days, partially covered over with a piece of cloth, retained an inch or so from its surface by means of short wooden pegs stuck into it, as the flies blow it more freely in this way than when entirely exposed. As soon as the young maggots become alive, the liver is to be transferred to an earthen pan, and there allowed to remain until the first brood are of full growth, when a mixture of fine sand and bran is to be put into the pan, allowing the carrion still to remain; and in a few days they will leave it and retire into the sand and bran mixture, and scour themselves in it. The same piece of liver may then be re-suspended over the pan, and a second brood will soon drop off; and after undergoing the same process, be in their turn fit for use.

If maggots are bred in this manner in October, and are kept in a moderately warm place until they reach their full growth, and be afterwards placed in a damp cellar amongst fine sand or sifted earth in the pan in which they were produced, they may be preserved all

the winter. Those bred in summer will soon sink into a torpid state among the sand and bran, and assume the imago state as aforesaid; but those produced in the autumn will continue in the larvæ or maggot condition all the winter, provided they can shelter themselves under the surface of the earth, and only change into carrion flies when the genial weather of the ensuing spring calls them forth; thus transmitting the species from one season to another.

Maggots, or gentles, as they are often called, are an alluring bait for trout in still waters, or when they are low in the heats of summer, and are universal favourites with most predaceous fish.

The method of applying them to the hook and of angling with them is precisely the same as that directed for caddies. The hook used must be a very small fly one, round in the bend, and armed with a bristle as for the last-mentioned baits.

I may here mention, that fish in a pond may be conveniently fed during all the summer months, by suspending pieces of liver on the branches of trees overhanging the margin, so as to breed successive crops of maggots, which will drop into it as they come to maturity.

Caterpillars.

Caterpillars, or *Palmer Worms*, of all kinds, are voraciously devoured by fish, and form excellent baits in still quiet waters. There are numerous species of these larvæ, of all sizes and colours, from the gigantic

caterpillar of the goat moth, to the almost microscopic maggot of the flea, inhabiting almost every tree and plant in existence; and they may be obtained at certain seasons in any quantity by searching their leaves, or shaking the branches and picking them up off the ground as they fall.

The common *Cabbage Caterpillar*, though tender, is a good bait in quiet waters, and may be used by impaling one at a time longitudinally on a fine-wired large-sized round-bend fly-hook, the shank of which must be concealed within the body of the bait, while the point, if allowed to protrude through the side, may be covered up to the bend with a maggot or another caterpillar of smaller size. If it is used in the same manner as a worm is put on the hook, the point of the latter soon penetrates through the side and shows itself.

The Gooseberry Caterpillar—those pests of our gardens—may be made to render a just retribution for the injury they inflict, by converting them into efficient baits, by using a hook of a smaller size, armed with a bristle as recommended for caddies, and applying a couple at a time, so as to completely cover the hook and its shank.

Numerous tribes of hairy caterpillars of various sizes may be found on different plants, such as nettles, heather, etc., which I have no doubt would be taken by fish; but as I never tried them, and have no personal knowledge of their merits, I merely mention them as a suggestion for the curious in these matters.

Any of the above caterpillars may be kept for a

considerable time, even until they assume the imago state, in pasteboard or wooden boxes, with perforated lids, provided they are fed daily with the leaves of the plant they are obtained from. And they may be conveniently carried for use, in either a tin or wood bait-box, with a perforated cover.

Wasp-grubs, as well as those of both the wild and domestic bees, are capital baits in fine waters. They may be obtained after stifling the wasps with brimstone or a gunpowder squib, and preserved in the honey-comb till wanted for use. In order to toughen them, they should either, while in their cells, be put into a warm oven after done baking, or be placed on a tile, fire-shovel, or cheese-toaster, before the fire ; or otherwise be immersed for three or four minutes in boiling milk. Any of the above methods will toughen them considerably, and cause them to stick well on the hook : the latter plan being perhaps the best. They must be applied to a fine fly-hook armed with bristle the same as maggots.

The *Common White Slug* of our gardens is an enticing bait for large trout, and we will seldom examine the stomach of one after a freshet in the river, without seeing the remains of one or more in a half-digested state. They may easily be obtained by scattering a few cabbage leaves, greased on the under surface, over the borders in the garden, where they are plentiful ; or sprinkled over with a solution of common salt, lime-water, or soda, which will detain them under the leaves till taken up. They may be preserved till wanted, in a box or earthen

jar with cabbage leaves and damp grass, and applied to a fly-hook, which must be buried within their bodies, and fished with without any sinkers on the line, as in roving with worm.

The *Screw*, or *Fresh-water Shrimp*, is also much fed upon by trout, and I have seldom looked into a trout's throat without observing their mutilated remains ; and were it not that they are exceedingly tender and difficult to retain on the hook, they would form first-class baits when the waters are fine. They may be obtained in almost any quantity in every little rill of clear water or well-spring, by means of a bowl-net of the size and shape of a large table-spoon or soup-ladle, made of muslin, with a rim of brass wire, and preserved alive for use in a small can of water, which ought to be changed every two or three days ; or they may be put in a tin box pierced full of holes, and placed in the bottom of a rill of water.

In angling with them, two or three are to be put on a small fly-hook, one covering the shank lengthways, a second across, and a third stuck on the point so as to cover it the same as in cad-bait fishing. If used in still deep water, a small quill-float may be used, with a small shot-pellet on the line ; but in the streams, they must be either dropped or swung into the water, but not cast (as that rough method would instantly destroy them), and allowed to be carried into the eddies with the current, without either float or sinkers. The same plan ought to be observed with caterpillars, maggots, grubs, and all such tender baits.

These baits may be conveniently carried for use—the maggots and grubs in a round tin box with a perforated lid, the former among a little bran; the caddies in the bark cylinder before described, or in a damp woollen bag with wet sand or moss; the caterpillars in a perforated wooden or pasteboard box, or in a small horn, closed at the large end with a movable wooden plug bored with air-holes; the slugs in a tin or wood box with damp grass; and the screws in a small can of water, from which they may be removed as wanted with a small muslin bowl-net, like a tea-spoon.

The late Mr. Daniell, of sporting memory, says, in his "Rural Sports," that a very successful method for the capture of large trout is to attach a pair of wings of land-rail's feather upon a fly-hook, and cover its point with a caddis or maggot (of course a wasp grub or small caterpillar would answer the same purpose); the whipping of the hook to be armed with a bristle, as previously directed, in order to prevent the bait from slipping off. The maggot or bait used must be slipped over the head of the hook until its head comes in contact with the wings, when this mythological incarnation is then to be cast up the stream, and allowed to be carried down by the current (why not cast it into the head of the stream at once, and follow down?) beneath the surface towards the pool below, from whence it is again to be very gently drawn against the stream, at the same time shaking the rod so as to give it an animated motion. Two caddies may be used upon the hook at the same time, in which case insert the point of the hook in at

the head and out at the neck of the first, and through the other from head to tail.

Another very killing method with the caterpillar, is to lap a bittern's, or any dun hackle approaching in colour that of the bait to be used, around the shoulders of the hook, and cover the remainder of it with a caterpillar. A bristle must be inserted in the shank of the hook as before. To use this hermaphrodite mongrel of a bait, pull out a short line, and dip with it over the banks and bushes, etc., as with the natural fly.

Doubtless the list of natural baits taken by fish in general might be extended almost *ad infinitum*, as they will occasionally swallow almost any fresh animal substance that their jaws can encompass, not even excepting tin tea-spoons garnished with fish-hooks for sauce (which, by the by, is not strictly speaking an animal substance), and anything from a drowned admiral to a living midge. A worthy knight of the cleaver of my acquaintance was in the habit of using no other bait than raw bullock's liver, with which he often succeeded in capturing a finer dish of trout than many of his more pretentious neighbours. But in the case of the more dainty feeding trout, who does not display any special predilection for defunct naval officers or soup-ladles, but whose bill of fare includes almost every member of those classes of animated nature termed insects and zoophytes—with the exception, perhaps, of an angry scorpion—within its range, the list of baits enumerated will surely furnish a sufficient variety either to suit the tastes of the most capricious fish or the most fastidious fisher.

CHAPTER XI.

FLOAT-FISHING.

Float-Fishing—Manufacture of Floats—Cork-Floats; Varnish for—Quill-Floats—Dyeing and Polishing of Quills—Resinous Cement—Plummets, and how to use them—How to proceed in Float-Fishing—Trimmer-Fishing for Trout—Manufacture of the Trimmer—Caoutchouc Varnish—How to use the Trimmer.

IN deep still rivers, lakes, or ponds, the float is an indispensable auxiliary to the bottom-fisher, in order to keep the bait in motion at a proper distance from the bottom, and prevent its lying motionless on the mud.

They are manufactured of various substances and sizes—as cork; swan, goose, bustard, and porcupine quills; and the former of various shapes, as pear-shaped, oval, etc., proportioned in size and material to the weight of the bait to be suspended, the strength and depth of the current, and the kind of fish we are in pursuit of. In live-bait fishing with gudgeons or minnows, or when large heavy worms are used, or the river is deep and the current powerful, so as to require heavy sinkers to be appended to the line to keep the bait down, cork-floats of a pear-shape and corresponding bulk must be used. On the other hand, in waters of but moderate depth and velocity, and with small baits, the quill-floats are best, as being less bulky and conspicuous; while in cad-

bait and maggot-fishing in still deeps, quills of the smallest size should be used. Here let the sportsman bear in mind that the smaller and finer the float, consistent with the depth and strength of the current and the weight to be suspended, the better will be his success; and if the water is moderately clear this is of paramount importance. The angler must likewise remember that either in comparatively still or shallow waters, less lead is required to sink the bait to a proper depth than in rapid or deep ones, and that consequently, a less bulky and conspicuous float will suffice.

Cork-Floats—How Made.

Take a good sound piece of cork, free from cracks and flaws, and of the requisite thickness; and with a cork-borer (the barrel of a steel pen sharpened on its upper edge will answer as a substitute), bore a hole longitudinally through its centre, across the grain of the cork; then pare it with a very sharp knife into the shape of a pear or an ellipsoid, or any shape desired, and to a proper size. For live-bait fishing for pike, and for the purpose of sustaining heavy bait and sinkers in deep powerful rivers, the float may be made of the size and shape of a small bergamot pear; but for trout, perch, and eels, and for waters of moderate depth and velocity, not larger than a walnut or nutmeg. The surface of the cork is then to be pared as smooth as possible, and neatly polished with pumice-stone, and a quill of small diameter inserted through the hole and fixed in its

place by resinous cement or wax. The closed end of the quill must project above the small end of the cork, and be rendered perfectly watertight by the insertion of a drop or two of wax or cement* into its interior, which must be pressed into the point of the quill by a bit of stick or wire. The quill must project about an inch above the small end of the cork, while a piece of wood the same thickness as the quill must be inserted and fixed in a similar manner with cement into the under and thick end of the latter, and be allowed to project about an inch below it. This piece of wood is to be tapered to a blunt point at its lower extremity, into which is to be fixed a small ring of fine brass wire for the line to run through, either by boring a small hole in it with a needle, and securing the twisted extremities of the wire ring with cement, or otherwise by whipping it on with silk. The whole must then receive several coats of varnish of a colour approximating as closely as possible to the tint of the water it is likely to be used

* Resinous Cement.—The following cement will be found very hard and tough, and not only useful for joining together the different parts of floats, but applicable to numberless other uses where an easily applied and durable cement is required:—

Melt five parts of yellow resin and one part of bees'-wax together; then stir in one part of burnt ochre and one-eighth part of gypsum; after allowing the whole to boil for a minute or two, remove it from the fire, and keep stirring it till it cools. When used, a portion is to be melted in a gallipot or small tin capsule, and applied as required.

Burnt ochre is common yellow ochre ignited at a red-heat for a few minutes in a crucible or iron lead-pan, when it becomes a deep red colour.

in. Some fishing-tackle dealers display these implements decked in all the colours of the rainbow, and more resembling children's toys than any part of a sportsman's paraphernalia; but it is doubtless the case that the more sombre in colour and the less conspicuous these articles are the better; and a coating of the undernoted beautiful but sober green varnish* will render the float a less glaring, though equally artistic object, than the bright blues and gaudy reds and yellows we so frequently see them covered with.

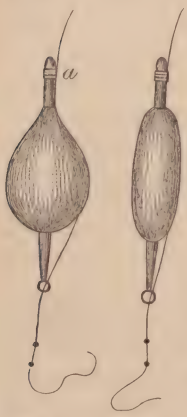

Fig. 25. Fig. 26.

The float is now completed by the addition of a cap to retain it in its place on the line according to the depth of the water. This cap consists of a ring of one-fifth of an inch broad cut off a quill, and lapped round with a few turns of silk to prevent it splitting; and it must be taken off

* Varnish for Floats.—Boil some powdered resin in a solution of carbonate of soda till all dissolved, taking care to add as much resin as the soda will dissolve: this forms a solution of resinous soap.

Then add to the above solution a solution of sulphate of copper until no more precipitate falls down, and filter it through blotting-paper. The gelatinous green precipitate thus obtained is a soapy combination of resin with oxide of copper; and, after drying it thoroughly, it will readily dissolve in spirits of wine, and form a beautiful green Japan varnish.

another quill a size larger than the one fixed in the float, so as to slip over it, and fix the line securely between them; when the finished article will appear as in Figs. 25 or 26, according to the shape given it, where *a* is the cap in its place.

Quill-Floats.

Cut off the barrel of a good quill, and clear the inside from the pith; then insert a drop of melted wax inside the point of the quill, to render it watertight. Next adapt a piece of light wood, about an inch and a half long and of the same thickness as the quill, into its open end with resinous cement. By inserting about half an inch of the wood into the quill, it will leave the projecting part of a proper length, which must be tapered to a blunt point, and have a wire ring fixed to it, as before described. The part where the wood joins the quill must be closely wrapped with waxed silk to render all secure and watertight, while the quill part of the float may be ornamented, if desired, with a row of lozenges by lapping it spirally in opposite directions with stout waxed silk. The wood should be precisely the same thickness as the outside of the quill, and the portion of it inserted inside the latter must be neatly reduced so as to enter it and form a close junction, with the rim of the quill resting tightly upon the shoulder cut in the wood. A few coats of shell-lac, or any transparent varnish, must then be given, and the complete article will appear as in Fig. 27.

A more buoyant float than the last is made by

attaching the open ends of two quills together by means of a wooden plug of half an inch in length, which is inserted so far into the interior of each, and fixed with cement to render the junction watertight. The whole is strengthened by the spiral lapping; and when

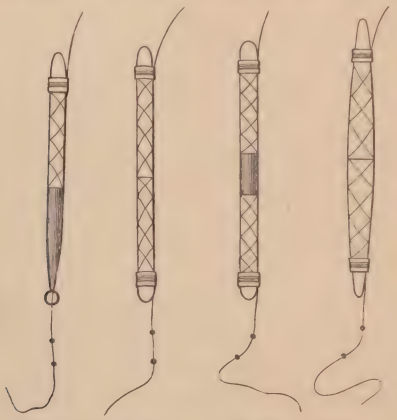

Fig. 27. Fig. 28. Fig. 29. Fig. 30.

varnished and fitted with a cap at each end is represented by Fig. 28.

Or the wood plug may be made in the first instance of the same thickness as the outside of the quills, and one inch in total length, when a quarter of an inch at each end may be reduced so as to enter the interior of each quill, and leave half an inch of the wood interposed between them, and flush with their external surfaces, as in Fig. 29.

A very neat float, tapering from the middle towards

each end, is made of a couple of thick porcupine quills, the pointed ends of which are cut off and rejoined together, by inserting a piece of stout wire pointed at each extremity so far into the pith of each, as in the case of the wood plug, when the whole is secured by spiral lappings. Fig. 30 represents this float.

The Tumbler-Float.

Perhaps the most useful kind of float with which we are acquainted, is the *tumbler-float*, used in the Trent by the Nottingham anglers, although unknown upon the Thames and most other rivers. By its use the sportsman is enabled to fish with as long a line out as he can throw, instead of being confined to one merely the length of his rod, as in the ordinary upright float. It is made thus:—Fix a swan quill into the base of a pear-shaped piece of cork, and a short wooden peg into its apex, as shown in the figure, by means of cement. But previous to doing so, a large shot-pellet must be dropped into the end of the quill at *a*, and secured there in its place by a few drops of cement. The quill must project above the cork considerably more than the peg does below it. *b* Is the cap as in

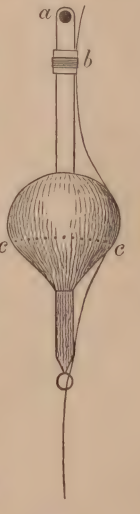

Fig. 31.

an ordinary float, but it may be made of metal if desired, and then the shot-pellet, *a*, may be dispensed with.

This float is intended to lie flat upon the water instead of upright, as the ordinary kind; therefore, the line next the hook must not be weighted with sinkers so heavily as to cause it to cock vertically. It is obvious, that as the cork will act as a fulcrum, the float will assume a vertical position as soon as the bait is seized by a fish, and thus warn the angler to strike.

The Eglington Float,

So called after an accomplished angler of that name, is another useful form of float for worm-fishing for trout in rough streams, where the bait is apt to become entangled and arrested in its course by stones and boulders, etc., at the bottom. It is made thus:—Cut a piece of cork into the same shape as shown by the dotted line *c c*, in the last figure (the upper part, I mean), and hollow out its broad surface into a shallow concave cup, and furnish it with a weighted quill and wooden peg, the same as in the tumbler-float. It will also lie flat on the water, and the resistance offered to the current by the cup-shaped surface will enable it to drag the bait over such impediments as are opposed to its progress.

Dyeing of Quills.

Quills for floats may be dyed red, and polished in the following manner:—Put as much Brazil-wood chips into stale chamber-lye as will colour it of a deep red;

then add some archil and common salt, and boil the whole in a pan for some time. When it is cold, scrape the quills, and immerse them in it for a fortnight, until their substance is completely permeated by the dye, otherwise the colour will soon wear off by use. After they are allowed to become thoroughly dry, rub them well with a woollen cloth, and they will become transparent.

Should this process of dyeing quills be found rather tedious, almost any colour may be given them by adding colouring matter to the shell-lac or other transparent varnish used for coating: dragon's blood added to lac varnish will make them red, and turmeric a yellow colour. The polishing of quills or horn is done by rubbing with finely-pulverized charcoal, or the ash of wheaten straw, on a wet woollen cloth; and after sufficiently smooth, polish them after drying with the same powder.

Plumbing.

The first thing in float-fishing is to select a favourable part of the river or pond: such as an eddy in the return of a stream, or a piece of deep quiet water in the neighbourhood of bushes or trees where trout are known to haunt, or a deep still pool well stocked with fish. The next thing is to ascertain the depth at various parts of the stream by means of one of the leaden plummets figured in the margin, and note the depth of each particular part of the pool upon a tablet, if the memory is not adequate to the undertaking, so as to be able to

shift the float according as the depth varies, without farther disturbing the water. It will even be much better if this operation be performed the day before it is fished, or at all events several hours beforehand.

Fig. 32 is a lead plummet, with a brass-wire ring fixed on its top, through which the hook and line are to be passed, and its point slightly stuck into a morsel of wood dove-tailed into the bottom of the plummet for the purpose, as shown at *a*. This is easily accomplished by cutting out a portion of the lead, with a very small chisel, or sharp pen-knife, and accurately fitting the slip of wood into it, when it is retained by the form of the dovetail, without further ado.

Fig. 32. Fig. 33.

Leaden Plummets.

Fig. 33 is simply a ribbon of lead about three-quarters of an inch broad, and 1-20th of an inch thick, coiled round upon itself; and it is attached to the hook, by merely unrolling a portion of the coil, inserting the hook between the folds, and closing the coil again; when all is made secure.

If one particular spot only is to be tested, the length of line wetted when the latter is held strict with the plummet resting on the bottom will be a correct indication of the depth; but in taking several observations (as astronomers say), or rather soundings (as sailors call them), where the depths vary, and some of them may happen to be shallower than those first taken, the previously wetted line cannot be relied on; but in this case, the line must be reeled in, until the tip of the

rod just touches the surface of the water when the plummet rests on the bed of the river, and the length of line between the two will give the correct result; which must be measured with a small pocket tape-line and noted down in the angler's tablets.

Method of Float-Fishing.

When fishing in a deep quiet stretch of water, or pond, it will be advisable to cast in some ground-bait ten minutes or so before commencing, in order to attract to the spot such fish as may be in the neighbourhood; and in this case, the angler should take his stand near the head of the pool; as only such fish as are lying below him will be influenced by the ground-bait, for reasons previously stated.

The next thing to be done is to fix the float upon the line so that the bait may be suspended from three to six inches from the bottom, by passing the cap over the hook, and then fixing it on the quill of the float, so as to embrace the line firmly between them.

Sinkers of shot, of greater or less weight, must be attached to the line eight or nine inches above the hook, according to the size of the float, and the depth and strength of the current; keeping in mind that they must be so regulated as just to retain the float in an upright position, with half its body above the surface of the water, without being either so light as to allow it to assume a horizontal position flat on the water, or so heavy as to draw it under the surface. The best plan

is to fix a single small pellet about nine inches above the hook, so as to keep the bait down without being so conspicuous as to cause alarm, and then affix larger ones at some distance above it, sufficient to retain and properly balance the float in the right position.

The longer the rod is the better, as its tip must be held if possible nearly perpendicular over the float; hence the longer it is, the greater will be the extent of water under command. It may then be eighteen feet with advantage, provided it is made of cane, or some other light material, so as to be easily managed, without wearying the arms; and the line between the tip of the rod and the float should not exceed six or eight feet in length, which ought to be kept constantly nearly taut, in order to enable a fish to be struck with the necessary quickness and precision.

Should the fisher have an eye towards the frying-pan, as well as the sport, I should recommend him to attach a fly-hook whipped upon a fine bristle to his line about eighteen inches above the end hook. If the latter is baited with worms, and the second one with a maggot, caddie, caterpillar, etc., the fish will have a variety from which to choose, and there will be two chances for one. A bristle will stand erect from the line, and display the bait to much better advantage than gut, which soon becomes soft, and gets entangled with the main line.

Management of the Float in Water.

All being now in readiness, the baited line must be

slung in, but not cast, as far up stream as it will reach, when it must be allowed to glide gently down with the current, and the angler must follow it for a few yards down, and then return a few times to the same spot to repeat the same process, so as to fish each given space of water completely, and give every fish lying there a fair chance to make up his mind to take or refuse it as he chooses. The first trials must of course be made close in by the edge of the bank, and gradually cast farther into mid-stream at each successive trip, so as both to avoid exposure at first to the view of such fish as may be lying close in shore, and to ensure the whole of the water being properly fished in turn.

Having thus completed a stretch of ten or fifteen yards of water at a time, as far into mid-stream as he can reach, he must take up a fresh position a few yards farther down, and proceed as before, until every bit of likely water is carefully gone over.

Deep or Opaque Waters Best.

As in float-fishing the angler is compelled to stand so near the water as to hold the tip of his rod vertically, or nearly so, over the float, it can only be successfully practised in waters of considerable depth, as well as in those of rather an opaque character; where both the sportsman, rod, and float, will be invisible to the fish at the bottom. A good stiff breeze to produce a roughish curl on the surface is also a material auxiliary; while in ponds and waters destitute of a

current, it imparts motion to the bait by its pressure on the line.

Striking.

When a fish seizes the bait, the fact is instantly announced by the float being drawn beneath the surface, when, if it is retained decidedly down, he is to be immediately struck, and either landed at once, if a small one, or otherwise properly played until he succumbs. But in the case of trout, when they are only shyly on the feed, it seldom happens that they at once gorge a worm on the first attack upon it, but will very frequently merely seize it by the extremity two or three times in succession, and as suddenly relinquish their hold, before they do so, as noticed in the chapters on worm-fishing, when they must *not* be struck until the float is decidedly retained below the surface of the water.

CHAPTER XII.

THE TRIMMER, AND HOW TO USE IT.

In ponds of moderate dimensions, excellent fun may be had by setting half a dozen trimmers adrift, baited with worm or living minnows, during the time the angler is occupied with his rod; and these will often succeed in making captures when his efforts with the latter may be unavailing; especially if there is a good breeze to keep them in motion.

The trimmer is neither more nor less than a miniature edition of that used in pike-fishing, and is thus constructed:—

Take a good large-sized sound cork bung, from an inch and a half to two inches in diameter, and with a sharp knife cut a groove around its circumference, for the purpose of winding the line upon, and then insert a piece of wood through its centre. This stick, or mast, must stand for an inch and a half to two inches above the upper surface of the cork, and project about half an inch below it. While the upper part of the mast may be neatly tapered, and have a fine slit sawn in its tip, into which a small piece of paper may be fixed, in order to render its position easily discernible when far out in the water, the under extremity must have a hole

bored in it, through which to secure the end of the line, as well as have a lead weight attached to it for ballast, to keep it floating straight. The whole of the cork must be pared smooth, and then have a covering of the resinous cement, or a coating of caoutchouc varnish,* to render it impervious to water, and consequently the more buoyant. If the whole is dressed over with a coating of the green Japan varnish recommended for floats, after being covered with either of the above, it will give the apparatus an exceedingly neat and finished appearance.

Fig 33 shows the trimmer in its complete state, with the hook baited and ready to be set afloat. *a* Is the mast carrying a small slip of stout paper or a morsel of white silk secured in the slit at its top, to render it easily seen at a distance; *b* is the under extremity of the mast, to which the end of the line is fastened, and to which the leaden plummet, *c*, is also suspended, to cause the apparatus to sit upright on the water when afloat; *d* is the cork body of the trimmer; *e* is a small ring of twisted brass wire, loosely stuck into the periphery of the cork, for the purpose of suspending the bait at a proper depth, and keeping the line from unwinding off the trimmer, but which will be easily withdrawn, and allow the whole line to run off, on a fish

* Caoutchouc Varnish.—Put a small piece of India rubber, cut into minute pieces, into half a pint of linseed oil, and place it over a slow fire, and stir it all the time till the rubber is entirely dissolved; then allow it to boil, skim it, and apply it while warm. This forms an efficient and durable varnish for rods and all kinds of fishing implements.

getting fast; while at *f* is a small loop of wire, to which as many shot-pellets are to be hung as there are appended to the line, so as to act as a counterpoise to the latter, and prevent the trimmer from floating a-lag.

The line used for these trimmers may consist of three or four yards of stout hair, or hair and silk line, with a couple of feet of gut next the hook; with a couple of shot-pellets, nine inches above the bait, to keep it down in the water.

Before setting these appliances adrift, the depth of

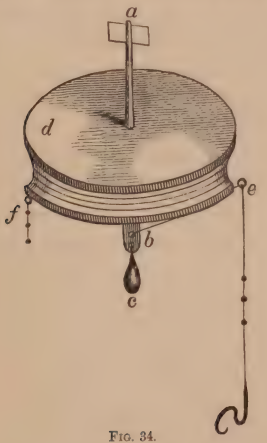

FIG. 34.

the pond must be ascertained in several different places over which the trimmers are likely to float, by means of the plummet; then the hook and line must be passed through the wire ring *e*, and the line wound round the

groove of the trimmer, and the ring stuck into its hole (ready made to receive it), leaving no more line between the former and the hook, than will serve to suspend the latter just clear of the bottom in the shallowest part of the water over which it must pass :—otherwise it will be apt to get anchored on the shallow and remain. The angler must then repair to the windward side of the pond, and set the trimmers afloat, each baited with a well-scoured lively worm, or a live minnow (the latter with the hook through the base of the dorsal fin), one after another, at a few yards separate, along the margin, when the wind will slowly propel them across towards the opposite side. When the fish seize the bait, they will withdraw the wire ring *c*, and unwind the line off the groove, which will give them sufficient play. An animated contest will now ensue between the trout and the trimmer, which will speedily manifest itself by the erratic motions of the latter ; and the next consideration will be how to recover the machine with its victim. In order to do this, a triangular hook of stout iron wire must be attached to a line of fine whipcord, or a jack-line (even a couple of large-sized pike-hooks tied back to back may answer the purpose), which the angler must endeavour to pitch over and beyond the trimmer, and between it and the fish—the direction in which the latter is proceeding being indicated by the movements of the apparatus ; when, on hauling it in again, the hooks will lay hold of the line, and readily haul it ashore. If the trimmer gets beyond the reach of the drag-hook, in the centre of an extensive pond, the sportsman may

either follow them in a boat, or, if such a vehicle is not at hand, he must then exercise his patience and wait until fortune or the struggles of the fish bring it within reach of either side. Excellent diversion may be thus obtained with these contrivances, while the sportsman may at the same time follow his occupation with the rod.

CHAPTER XIII.

NIGHT-FISHING.

Evening-Fishing; Flies for—Barker's Directions for Night-Fishing—Reflections on Night-Fishing.

DURING the height of summer, from June to September, the largest and finest fish are invariably taken in the evening, as they lie all day snugly ensconced underneath banks, roots, stones, etc., and only come forth to feed about twilight. Those in rivers leave the deep water, and hunt the rapids above the streams, and the shallows at their side, for minnows and other edibles, when an adroit minnow-spinner may follow his vocation with great advantage; while those in lochs and ponds roam around their margins, and up the mouths of the feeders, in search of worms, slugs, beetles, or such other matters as the banks may furnish: any of which baits may be used, including large moth-flies, as the most appropriate lures for evening-fishing in still waters. And in these respective situations only must the night-fisher ply his craft, viz.—in the rapids above and between the streams, and in the shallows at their sides; or in back-waters, where they exist, in rivers; and close in shore, by the margins of lochs or

ponds, and at the mouths of rivulets running into them. During the fine warm evenings of June and July, when the waters are generally too fine and low to admit of any operations during the day, from sunset to the approach of dusk good execution may be done with the following flies:—the golden and red spinners, light brown gnat, cream camel, green bank-fly, grey gnat, and yellow miller; and when it begins to get rather dusk, spin a small-sized minnow in the rapids, shallows, and back-waters, which may be successfully continued all night long, if the angler thinks proper; and I have no doubt that some of the finest fish in the river will reward his exertions. In a lake or pond, commence at sunset, with some of the above-named evening flies, until the approach of night; then substitute the dip-minnow, worm, or some of the large moth-flies, which, neatly dropped over the banks, will be peculiarly appropriate, and likely to do execution. Should operations be prolonged a few hours into the night with the above lures, the angler will run every chance of being well repaid for braving a little night air, provided he is not an asthmatical old gentleman; in which case, a flannel night-cap and a cup of caudle will agree better with his constitution than the dews of night.

On the Tweed it is a very common practice with the native fishermen to ply their vocation all night long during moonlight, either with fly or minnow, but principally the latter, when severe droughts prevail, and the river is too low for operations during the day. I have seen several magnificent baskets of trout thus obtained. It may be all very well to fish all night in

moonlight ; but in a dark night the perpetual fouling of the tackle upon the grass, bushes, and other things, will render the sport anything but pleasant—to say nothing of the agreeable prospect of hooking a rheumatic fever along with the fish. However, should any angling enthusiast be desirous of trying what favours the cloud of night may bestow on him, I would advise him to go forth with a policeman's lantern buckled round his waist, which he will find a very useful article indeed, as it will enable him to see to apply the bait, bring the fish to land, or disengage the tackle when fouled ; the slide allowing it to be opened or shut at pleasure ; at the same time he will do well to use nothing but tackle of the stoutest description in night-fishing, which the darkness will sufficiently conceal.

I will now quote Barker's directions for night-fishing, an authority quoted by the venerable Walton himself. It appears he was in the habit of using both worm and fly alternately as the degree of darkness varied ; but I will let him describe his operations himself, as detailed in a letter to his patron. He says, "I went presently to the river, and it proved very dark : I threw out a line of three silks and three hairs twisted for the uppermost part ; and two silks and two hairs, for the lower part, with a good large hook. I baited my hook with two lobworms, the four ends hanging as neat as I could guess them in the dark. I fell to angle. It proved very dark, so that I had good sport : angling with the lobworms as I do with the flies, on the top of the water : then you must loose a slack line down to the bottom as nigh as you can guess ; then hold your line straight;

feeling the fish bite, give time, there is no doubt of losing the fish, for there is not one among twenty but doth gorge the bait; the least stroke you can strike fastens the hook, and makes the fish sure: letting the fish take a turn or two, you may take him up with your hands. The night began to alter and grow somewhat lighter. I took off the lobworms and set to my rod a white palmer-fly made of a large hook: I had good sport for the time, until it grew lighter; so I took off the white palmer, and set to a red palmer, made of a large hook. I had good sport until it grew very light; then I took off the red palmer, and set to a black palmer. I had good sport, and made up the dish of fish. So I put up my tackles, and was with my lord at his time appointed for the service. These three flies, with the help of the lobworms, serve to angle with all the year at night—observing the times as I have shown you in this night's work; the white fly for darkness, the red fly *in mediis*, and the black fly for lightness. This is true experience for angling in the night; which is the surest angling of all, and killeth the greatest trouts. Your lines may be strong, but must not be longer than your rod."

Although I have never personally tested these directions so graphically described by this ancient worthy, yet I have not the slightest doubt of their efficiency in rivers or ponds containing large trout; as it is a well-ascertained fact, that all the larger predatory fish (and what fish are not more or less predatory, as well as fishers?) feed principally during the night. It has even been remarked that trout never take so well after a dark night as after a moonlight one, on account

of their having gorged themselves so much under cover of the darkness.

Mr. Stoddart also treats of night-fishing, and recommends a large black fly to be used, made of the beard of a crow's feather warped round the shank of a common bait-hook, during the hours of darkness.

To such as are of a melancholy temperament, and fond of solitude, night-fishing may be peculiarly agreeable, where nothing around will break the stillness of night, or disturb his lonely cogitations, but the distant bark of the hill-fox,—the hoarse croak of some demure heron, watching by a sedgy shallow,—the plaintive wail of the pewit, as he awakes at intervals from his slumbers,—the whistle of the plover, searching the neighbouring fallows for his midnight meal,—or the screech of the owl, as he flits past on noiseless pinions;—sounds not by any means calculated to enliven the scene, or distract the train of sweet or bitter memories which may perchance engage the thoughts of the midnight sportsman. And so far as this is concerned, night-fishing may be styled, *par excellence*, "the contemplative man's recreation;" but I must confess that sporting after this fashion has something about it altogether too gloomy and too solitary to be agreeable to most men; and I for one most decidedly prefer to cast my lines on purling brooks, beneath the cheering rays of the morning sun, when the whole of created nature is redolent of life and gladness, and leave those who list to divide their midnight vigils, by the side of some solitary stream, with the heron, the owl, and the bittern.

SALMON-FISHING.

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CHAPTER XIV.

Salmon-Fishing as a Sport—Implements and Tackle: Winch; Rod; Reel-Line—Casting and Fly Lines—How to attach the Flies—Gaff, and how to use it—Different Methods of landing Salmon—Casting and manœuvering the Flies—When and how to strike—Behaviour of a Salmon on being hooked—Adventure in Carham Wheel—Hints to be attended to in Salmon-Fishing—Patience and Perseverance necessary—What Creature the Salmon-Fly is supposed to be—One Pattern of Salmon-Fly as good as another—Artificial Sea Anemone—Shrimp, Sand-eel, etc.—Parr-Tail and Minnow-Spinning—Worm-Fishing—Worm-Spinning and Tackle—The Eriox—Singular Disappearance of the True Salmon from the River Coquet—The Whitling.

OF all the various sports a man can follow, that of salmon-fishing is the most thoroughly captivating and exciting. Whether we consider the noble proportions, the vast physical powers, and the game qualities of the fish pursued, the fierce and protracted struggle that must inevitably ensue, ere the prince of the waters yields to his conqueror, and lies gasping at his feet; the almost equal chances of victory between the fisher and the fish, uncertain as chance itself, trembling in a balance (when a momentary inad-

vertence, or the slightest false step, would inevitably lead to certain discomfiture); the constant state of expectancy that attends every cast of the line; the value of the prize when won; the amount of dexterity and self-possession required to affect the capture of such a powerful antagonist with the comparatively slender means employed; or the never-failing beauty of the waters and surrounding scenery, where this aristocratic member of the finny tribes invariably locates himself;—all these considerations, few will deny, contribute to render salmon-fishing the alpha and omega of field-sports, as it decidedly is of piscatorial pursuits. Few sights can be more exciting to the eye of a sportsman than the vigorous dash of a salmon at the fly, and the desperate and almost irresistible plunges and determined resistance that ensue, while it rampages fiercely about, like a frantic lion, in the surging depths of some black and savage-looking pool; and with what self-satisfaction will he not regard himself, when, after maybe an hour's arduous contest between brute force and human skill, the sturdy fish at length relinquishes the fight, and finally stretches his silvery sides along the shingle—his much-admired captive!

Implements and Tackle for Salmon-Fishing.

The Rod for salmon-fishing must be large and powerful; of from 16 to 20 feet, according to the height and physical strength of the wielder. Greenheart makes an excellent material for the salmon-rod; and it ought

to be built upon the same plan as the trouting fly-rod; only vastly stronger in proportion. A perfectly made rod ought to yield in a regular graduated curve from the tip to the reel when a strain is upon it: no particular part giving more than another. In casting with a rod of this perfect make, it will be found to spring even within the grasp at the butt. If divided into three joints only, the rod will be more uniform in its action and less liable to fracture at the ferrules; but if in four, it will be much more portable and convenient to carry—a point of no small importance to the tourist. Although the longer and more powerful the rod, the greater will be the sportsman's command both over the water and the fish when hooked, yet a rod of 16 feet will be found heavy enough not only to enable a very considerable extent of line to be cast, but to tire the industrious angler sorely enough in a long day's fishing. And if such a one is fitted up with three different top-pieces—one for fly-fishing; a second, a little stouter and stiffer, for minnow, parr-tail, and worm-spinning; and a third of about 1½ foot, short and thick, for pike-trolling—it will form a very complete and efficient implement for general purposes, and may be used with the fly-top, either in fly-fishing for salmon, in minnow-spinning or trolling for trout—as a double handed fly-rod for the same—or as a pike-trolling rod.

Winch or Reel.—Unquestionably, the safest and best reel for salmon is a plain pillar one, with either a friction-plate or ratchet-wheel, to check its running too freely. I would also recommend a trial of the double multiplier

described in this work, as I consider it will be a very efficient implement if properly made ; but as its merits have not yet been tested, I cannot at present do more than lay the invention before the angling community. Every reel, of whatever construction, ought to be narrow in width and broad in diameter, so as to facilitate the dispatch with which the line can be reeled in.

Reel-Line.—This ought to consist of from 80 to 100 yards of waterproofed silk, or silk and hair line, tapered a little towards the end, as directed for the trouting-line. (Directions for waterproofing are given in Chapter I.) I have seen a very good and exceedingly strong line made of plaited cotton ; but it becomes rather heavy when soaked with water, and I should be afraid that if any dressing containing linseed oil were applied to it, its action would be injurious, as the chemical action of the one upon the other is so energetic, that a heap of cotton rags saturated with the oil will speedily generate spontaneous combustion. But the india-rubber and naphtha solution would be harmless.

The Casting-Line, intervening between the end of the reel-line and the fly-cast, may consist of 6 feet of the best three-ply twisted gut. Some at once attach the flies to this ; as the salmon is not nearly so wary and easily frightened by rough tackle, or a disturbance on the water, as the trout, provided the angler only keeps his own person carefully out of sight ; but in this, as in all other kinds of fishing, I regard neatness and unobtrusiveness to be the foundation of the angler's success. I certainly have seen a salmon of 12 lb. taken upon a

line quite as thick as ordinary whip-cord, but this is no argument against the assumption that half a dozen might have been taken by the use of single gut, during the same time that was occupied in inducing this single fish to rise.

The fly-cast attached to the end of the above should consist of about six or eight feet of the stoutest and soundest single salmon-gut, the links securely knotted to each other by what is known as the single fisherman's knot.

Salmon-flies ought to be whipped upon loops of stout gut, only large enough to permit of the extremity of the gut-line being threaded through them; when their attachment to the latter will not only be almost invisible, but it will be the easiest thing imaginable to change them at pleasure, without the slightest injury either to fly or line, with the exception of opening or cutting off the terminal knot. The method of attaching them is this :—Slip the end of the gut-line through the loop of the fly, then cast a single knot at its extremity, and cast a second knot enclosing the gut, when a union is formed which cannot possibly slip, and which is not larger than the head of a pin. A drop-fly may also be fixed four feet above the tail-fly, as in trout-fishing.

As both salmon and eriox will take parr-tail, minnow, and worm very freely, in proper states of the water for those kinds of fishing, the tackle used must be precisely the same as for trout, with the hooks only a little larger and stronger, and the minnows and worms employed of a full size.

The Gaff-Hook will be found a very convenient im-

plement, particularly if carried by an intelligent attendant who knows how to use it. Some prefer the landing-net, but one large enough to safely circumvent an eriox or a salmon is not only a cumbrous implement to carry, but a clumsy piece of machinery to use with a wild and sometimes only a half-spent fish.* Others again, discarding the employment of either, sagely recommend the angler to wind his line in, keep his rod well on the bend high above his head, and then cautiously stoop down and grasp the fish by the tail just above the caudal fin, and quietly carry him ashore and knock him on the head without more ado. But should most men attempt such an exploit, I will confidently wager that nine fish out of every ten will cleverly elude the bungling grasp of the over-ardent and nervous sportsman, and forcibly illustrate the truth of the adage that "there's many a slip between the cup and the lip." It is no easy matter to maintain a secure hold of a slippery fish in the midst of his powerful struggles for life and liberty, any more than it is to swing an eight-stone pig over your left shoulder by the caudal extremity, after the same has been shaved and greased.

The ordinary gaff-hook is neither more nor less than a large sharp-pointed steel hook, from two to three inches across the bend, screwed into a tough wooden handle about four feet long, and this is an efficient enough implement in its way. The kind, however, I always

* The gaff will be inadmissible during the early part of the season, when kelts are in the water.

use myself, is made with a barb at the point, and exactly resembles an immense round-bend fish-hook : hence if ever it is struck into a fish beyond the barb, all chance of escape is impossible. Some improved gaffs have a sharp cutting blade attached to them, which opens to an acute angle only, and is used to cut away any weeds or twigs which may happen to foul the line ; a contrivance which is occasionally very useful. This gaff is made to screw at pleasure into a brass socket fixed upon one end of a hollow bamboo shaft, capped also with a brass cap screwed upon the other end. In this receptacle a pair of extra tops to the rod can be most conveniently carried if desired, if the butt of the rod itself is not bored for the purpose. I will here suggest to the natty sportsman, that a small strong double-toothed saw, made expressly for cutting green wood, and fitting into the screw of the gaff-handle, would be a most useful auxiliary on woody waters, for the purpose of cutting down any branch of a tree overhead, too thick for the gaff-knife, and upon which the line may happen to get entangled, as I have often seen the case. The saw may be safely carried in a stout leather sheath or case, when not in use.

As a receptacle for the spoil, the angler will find a large bag of Macintosh cloth, or fustian lined with oil-cloth, wide in dimensions, but not too deep, a much more convenient appendage than a wicker creel—as the latter must be made inconveniently large to contain such bulky fish as either the salmon or eriox. An attendant to carry both gaff and fish-bag will be almost indispensable, as it will be impossible for the fisher to

carry the long gaff himself while using the rod ; and if he either lays it down, or sticks it in the bank by means of a spear at its end, it will very frequently happen that the fish will be landed some half a mile or more from where he left it, and thus, when most urgently required, Mr. Gaff *non est inventus*. Besides, should the sportsman be fortunate enough to kill half a dozen good fish of ten or twelve pounds each, as he may occasionally hope to do (we have seen one rod land thirteen !) he will find more than half a hundredweight dangling at his back for eight or ten hours a rather embarrassing burden. But should he be inclined to dispense with the services of an obsequious William, he may then arm himself with a short gaff of eighteen inches in length, which he must continue to carry in his bag and use himself, in the best manner he can. It may not be out of place here to mention, that in gaffing a fish the attendant ought to proceed to work with the utmost caution and coolness, and avoid any sudden or impetuous movements, calculated to alarm the fish and set him to plunging ; and having quietly approached near enough to him, from behind rather than in front, shove the hook of the gaff gingerly under, rather than over him, and having nearly raised the shank to his belly, but without touching it, see that the point is in the right direction, and then strike it into him with a lusty and decisive back stroke, when his days will be numbered. Simple as it seems in cool blood, to gaff a fish properly and adroitly in the flurry and excitement of the moment is easier described than done ; and it requires both com-

posure of nerve and practice, to enable a greenhorn to avoid occasionally missing his mark—giving the fish a sturdy punch in the ribs with the bend of the gaff instead of the point.

Salmon-Flies and Bait.

What creature the fish suppose a salmon-fly to be is rather a puzzling question ; as it bears no resemblance whatever to any insect that ever roamed the air, except very remotely indeed to a huge overgorged dragonfly. And though the larva of the dragonfly is a permanent inhabitant of the waters, during this stage of its existence—being bred and hatched there—yet it is never found in running streams, or in such as are frequented by salmon, but always either in standing pools, or, as in the larger species, in the moss-holes on moors ; while the insect, on assuming the perfect state, is invariably in the habit of roaming far away, over the dry heaths and downs, and never goes near the water, except for a transient visit to such stagnant pools as are adapted to receive the ova ; hence it is very improbable that even one salmon out of every thousand ever saw such an insect ;—while what little knowledge of insect life this fish possesses, must only be through some faint recollection of those beings, retained since the period when he was a tiny parr in the river ; as no true insect of any description exists either upon the surface, or in the waters of the ocean, where the greater part of his life has been spent, and he takes no notice whatever of

the ordinary aquatic flies. I think most people will agree with me, when I consider it is rather forming too high an estimate of the piscine mind, to suppose that either Mr. Salmo Salar, or his cousin Mr. Eriox, are endowed with such a strong power of memory, as to recollect precisely the exact shade of colour, to the tint of a hackle, of their favourite flies, for so long a period as some ingenious fly-dressers would have us believe. My theory is simply this, that both salmon and eriox take the fly, merely from an instinctive propensity to seize upon any small object moving in the water that presents an appearance of life, and that is tempting enough in appearance to be worth the trouble of pursuing. Hence it is my opinion—whether right or wrong I will leave wiser heads than mine to determine—that it is not necessary to dress salmon-flies according to any particular rule or standard, as in trouting-flies, and that one style or colour is quite as good as another, provided the colours are sufficiently gaudy, and neatly contrasted. Therefore, I believe, that were I to spread my dressing materials in order, and commence fabricating a fly totally differing in the arrangement of the colours from any that had hitherto been seen, I would stand quite as good a chance of killing fish with it, as if it was a *facsimile* of the most celebrated fly ever busked for the thousandth time by O'Shaughnessy himself.

To pretend that the efficiency of the fly depends upon its being dressed according to a certain prescribed pattern, when it cannot possibly be the representation of a being which is not in existence, is simply absurd ;

but, at the same time, I admit that certain colours, or combinations of colours, may be more attractive to salmon than others.

To prove that almost any combination of colours, arranged into the shape of a fly, will be taken with little distinction—time was, when nothing but those of the soberest hues were successfully used on Tweed, and it was alleged by the local anglers there, that the gaudy flies used upon the Irish rivers would never be looked at by a Tweed salmon, until some one mustered courage enough to try them, when they were found to be rather more efficient than those generally used at the time; since which, nothing but the gaudiest flies are now in vogue on that river. On the same day we will see half a dozen fishers return with nearly equal success, although one may have used a fly of sober black, a second one of blue and yellow, a third a combination of green and gold, and so on through all the colours of the rainbow.

The size of hooks used varies. Those most used are Adlington's from No. 15 to 50, and Phillips' No. 4 to 6. As before noticed, the variety is so great in the dressing of salmon-flies, that before proceeding to the water the angler would do well to consult with those who have had experience in the river or loch to be fished. A salmon-fly is a much ruder lure than the trout-fly, and success does not depend so much upon its nice dressing.

In the spring of the year, when the waters are full, the parr-tail, or minnow, are successfully angled with for salmon. The tackle for either bait is simply the

same as the No. 1 set of minnow-tackle described in Chapter VII. ; only the hooks ought to be larger and stronger. The parr-tail is simply the tail half of a parr or small trout cut diagonally across from the front of the back fin, with all the fins cut off.

The worm may also be successfully used for salmon during a full state of the waters in the early part of the season, angling with it in the same way as for trout ; remembering that as it has to be used in strong waters, it must be so leaded as to keep it down a little below midwater. The following method of spinning a worm in a similar manner to a minnow will, I have no doubt, exhibit the bait in a tempting manner. It is the contrivance of a correspondent of the *Field*, and he states that he has killed some hundreds of large pike, perch, and roach with it. His directions are thus :—"Take a large dead worm, pass a piece of thin copper wire from head to tail, making a small loop at each end ; then affix a snap composed of two small and one large treble hook, and use it as any other spinning-bait ; it will kill well, especially in clear water." (?)

Although such may never have been tried, I have an idea that if an artificial sand-eel could be made of gutta-percha, india-rubber, or some other plastic material, and properly coloured after nature, it would be a very killing lure for salmon, as they are known to feed largely on this fish during their residence in the sea. I have also heard of them being taken merely by a strip of white leather wound round the shank of the hook, with a portion of it hanging loose beyond the bend, so as to

resemble a small eel. The whole had a blue stripe down the middle.

An artificial shrimp has been lately brought out, and I should think it is very likely to answer as a bait, as those creatures will no doubt constitute a large portion of the food of salmon when upon the coasts; while it is highly probable that it will also be taken in estuaries and tideways, where the fly is now useless.

It must be remembered that salmon will only rise at the fly after they have run a considerable distance from the sea, and been quietly located a few days in some favourite pool; and that during the continuance of a freshet in a river, if they are at all upon the run to the higher waters, it is quite in vain to attempt fishing, as they will then utterly disregard the most brilliant lures that can be offered to them. On one occasion I witnessed a singular misadventure happen to a 12-lb. salmon while fishing at Tarset in North Tyne. There was a good deal of freshet in the river, and the fish were all upon the run, so that our sport was nil. When approaching an angular bend, where the stream suddenly darted off towards the left bank, and left a gradually shelving bed of gravel straight in front of a deep pool, I observed a fine fresh-run fish run straight out of the water up the dry gravel for a distance of a couple of yards (such had been the velocity with which he was running), when a friend who was with me, the tenant of the water as well, instantly pounced upon him.

Method of casting and manœuvring Salmon-Flies.

As I fully detailed the proper method of casting the fly-line, while treating of trout-fishing, in a former chapter, it is unnecessary to repeat the same here, as, so far as the mere casting is concerned, the method is precisely the same in both cases, only using two hands to the rod in the latter case, in place of wielding it with one, as in trout-fishing — but here the resemblance ceases. Although both the salmon and eriox are exceedingly wary, suspicious, and sharp-eyed gentry, yet as the majority of the streams and pools in which they take up their quarters are generally of much greater depth, and rougher on the surface, than such as harbour the trout, it neither is necessary, nor yet is it possible, from the greater size and weight of the flies and tackle, to cast with that extreme nicety and delicacy so essential to success in trout-fishing; while the fish in question do not seem to be so easily alarmed at any little disturbance the line may produce on alighting on the water. The great object in salmon-fishing is to throw a long, rather than a fine line, so as to command as extensive a sweep of water as possible, as well as to keep the sportsman well out of sight when the fish rise to the surface.

The most likely part of a water to harbour a salmon, will be close by the side of the strongest and deepest part of the current towards the centre of a

pool, especially if there are any large stones or ledges of rock behind which he can shelter himself, or in the boil, just at the foot of the gullet of a stream; while the eriox more affects deep still pools, with only a moderate current, than those rough surging waters which the immense muscular power of the true salmon alone seems capable of contending against with any degree of ease. Supposing then a candidate for piscatorial honours in these higher branches of the art presents himself, hat in hand, by the side of a favourite salmon pool; we would advise him to march up to the head of the stream (we always like to begin at the beginning of everything), and drawing out as much line as he can manage—by making a vigorous effort of arms, shoulders, and limbs, all combined, to cast his flies straight across the pool, and deliver them as near to the opposite side as possible. He is then to allow them to sweep gradually round him in the shape of a semicircle, which they will naturally do from the action of the current; but he must bear in mind, that in place of keeping the flies dangling upon the surface as in trout-fishing, they must be allowed to sink from three to six or eight inches beneath, according to the depth of the water; and that they are to be gradually drawn towards him at the same time that they are swept round by the current, not with a steady uniform motion as in trout-fishing, but in a series of moderate jerks, precisely as in minnow-spinning—drawing the flies through the water, at intervals of a second or two, about a yard at a time, when the tug must be

relaxed for a corresponding interval, during which the flies sink again to the proper depth, and the filaments of the wings and hackles expand themselves in the water, with something like an appearance of life, and thus show themselves off to the best advantage. The tip of the rod must be held rather low during the sweep of the flies, to avoid pulling them to the surface.

When a fish rises and shows his silvery sides, by no means strike immediately, and jerk the fly beyond his reach before he has time to seize it, as the nervous tyro is very apt to do, but let him fairly turn round again before you offer to do so. This may be known, where he is too deep or far off to be seen, by the boil his tail creates in the water over the spot when he turns ; then count *one* deliberately to yourself after perceiving the aforesaid boil in the water, and instantly fix the barb in his jaws, by a sharp and decisive, though by no means a violent stroke of the rod. It is now only that the tact and skill of the angler are put to the test. The first rattle of the reel announces that the tug of a savage contest is about to ensue, where brute force and endurance are pitted, upon nearly equal terms, against human skill and strategy, and the chance of victory to either hangs by a mere thread.

Running a Fish.

It is usual for a salmon or eriox, on first being struck and immediately he fairly feels the restraint of the line, to make a furious rush direct across the river, and then throw three or four wild somersaults in the air, endea-

vouring to smash the line with his tail, after which he generally darts off at railway speed, either straight up or down stream, but most commonly the former, for eighty or a hundred yards, or more, or as far as the limits of the pool allow. A large, vigorous, fresh-run fish, sometimes does not hold with this, but will often keep on straight ahead for a considerable distance, dashing over rocks and linns like Mazeppa's horse ; when the only alternative is to follow suit as fast as limbs can carry, and should the angler now and then unwittingly come in rude contact with some sharp-cornered rock and peel his shins, he must never for a moment think of sitting down to rub them, but steadily pursue the fugitive in spite of every obstacle, and trust to fomentations and poultices to restore him after the day's work is done. But it more frequently happens that a member of the finny fraternity of somewhat milder disposition is encountered, who, after a few indignant plunges, a vault or two aloft, and a lively gallopade round the boundaries of the pool, turns short round upon his foe, and hugs and tugs—twitch to this side, twang to the other—a rush here, a dart there—a flounce hither, and a flounder thither—in a sullen, morose humour, the very reverse of amiable, until both his strength and his choler are exhausted, when he quietly turns on his side, and allows himself to be unresistingly hauled ashore. Another irascible gentleman, after performing a few uncouth gymnastics upon the surface, perhaps suddenly dives to the bottom, where he lies sullen and motionless as a stone, in the highest of dudgeons, like a sulky bear,

until the impatient sportsman—after trying every means of civil persuasion in vain, and after expending upon him every epithet in the vocabulary, both sacred and profane—fairly driven to desperation, ultimately bombards the perverse brute with stones, until he again advances to the scratch. A gentleman of my acquaintance, the late Major O———, was actually compelled to resort to the above tactics in an encounter with a thirty-six pounder in the Shannon, a few years ago, and fairly pelt him out of the water before he could succeed in killing him. Such are a few of the eccentricities displayed by an angry salmon, when it is unreasonably attempted to interfere with his independence, and dictate terms against his will.

The persevering perversity of the salmon, on some occasions, is illustrated by what once occurred to a friend of mine at Carham Wheel. I shall allow him to tell his own story :—"I hooked him about midwater out of old John Scott's boat, when I shoved ashore as soon as possible, after he had concluded his preliminary plunges ; but no sooner did I step out of the boat, than off he set at race-horse speed, direct to the far side of the Wheel, where he obdurately lay immovable as a rock, in spite of all my tugs to set him agoing again. I at once embarked and rowed across, reeling in all the way, but the moment I again put foot on *terra firma*, off the beast rushed direct across the river, to the precise spot we had left, where he quietly laid himself down just as before. I set off for a second trip after the provoking fish, who rushed away again like lightning the instant

I left the boat. This he did, strange as it may seem, no less than six different times, pursuing precisely the same tactics on each occasion. I was almost half inclined to give up in disgust, when John proposed to row into the stream and play him from the boat. This stratagem had the desired effect, as on the next occasion we rowed close upon him to water-ward, and having again started him, he made play, and after a rather severe tussle was adroitly gaffed by John, who apostrophized him in highly classic language. As a finale, both John and I drank to our success, *just* a thimbleful, as is customary on the Tweed, and hanging our captive upon the balance, found him to draw close on twenty-one pounds."

General Hints.

To enable any one successfully to contend with a hooked fish, I recommend his attention to the following general hints:—In the first place, see that the reel is left free to run, before ever casting a line upon the water. In the second place, always compress a portion of the reel-line firmly between the first two fingers of the right hand and the butt of the rod, so as to regulate its passage off the reel, either in casting or playing a fish. And, in the third place, remember that the first thing to be done, after hooking a fish, is to raise the rod instantly perpendicularly, or rather a little backwards, over the right shoulder, at the same time allowing just as much line to run out as will enable you to do this. Should the fish then take into his head to dart

off across the river, as he will most likely do, the line must be let out according as is required, maintaining all the time a sufficient pressure upon it between the fingers and the rod, to retain the two upper joints of the latter bent in the form of a bow; but by no means make the strain so severe as to endanger either rod, line, or hold.

This requires a little judgment on the part of the angler. On the other hand, should Salmo change his tactics, and rush straight at his tormentor's feet, as he frequently does, the sportsman must alter his as well, and retreat in this case as fast backwards as his legs can assume a retrograde motion, keeping the rod in the same position, with the same strain on the line, until he can conveniently reel up, without abating his pull upon the fish, which ought to be uniform and constant from the moment of first hooking until the victim is gaffed, without ever suffering the line to slacken, or the top of the rod to unbend for an instant, unless it is just a momentary relaxation during each vault into the air. When a fish springs furiously into the air, and endeavours to strike the line with his tail, as a salmon invariably does shortly after being struck, the pull must be instantly relaxed—the top of the rod lowered and thrown forward towards the fish—and the line allowed to run freely out, otherwise certain destruction will happen to either rod, line, or hold; but the moment he again falls into the water, the strain must be instantly resumed. This is at all times a dangerous manœuvre on the part of a salmon, and one by which more fish are lost than by any other mischance. Again, should

he, after performing some or all of the above acrobatic feats, prefer to run off direct up or down stream, I would enjoin the sportsman, in place of standing still and letting out line, to make use of his legs as well as his arms, and either walk or run along shore, directly opposite his head, with as short a line out as possible; as the shorter the latter is, the more command will he have over the fish, and the better will he be able to keep him in hand. Should the fish be allowed to get any considerable distance in advance of the sportsman while running up stream with a long line out, the latter will inevitably get *drowned*, as it is termed in angling phraseology; that is, the current acts so powerfully upon the line, as to sweep it down in a large curve far behind the fish, which may be really fifty yards in advance of the position he appears to be in; when the action of the rod upon the latter will be completely neutralized by the action of the current against it, and the fish, thus comparatively relieved from the pressure of the rod, will be pretty much at liberty to do as he chooses. Besides the above evil, it very often happens that a drowned line becomes irretrievably entangled round some projecting stone or snag, if there is one in the neighbourhood, when whiff goes the gut, and away goes the fish. And for the above reasons, a fish should always be played with as little line out as circumstances will permit; while every endeavour ought to be made to induce him to turn from a course up stream, or from the vicinity of roots, rocks, or other dangerous objects, by holding the rod almost horizontally backwards, and pre-

senting the butt to him, with a firm pressure on the line, until the object is attained. If he can be prevailed on to take an opposite course down stream, not only will the chance of a drowned line be avoided, but at the same time the strain upon both rod and line will be very much lessened, and the whole of the elastic power of both be brought to bear directly on the fish, and the victim will be much sooner exhausted, as he cannot respire freely with his head down a strong current. If the sportsman is not too indolent to make a proper use of his legs in playing a fish, and retreats and advances to and from the water, as well as up and down the margin, according to circumstances, it is seldom that he will require to let out a long line, unless in cases when the fish dashes to the opposite side of the river, and much trouble with the reel will thus be avoided. When the angler is fishing from a boat, or in places where he is hemmed in and retreat is impossible, should the fish make a sudden rush directly towards his feet, it will likely be impracticable to reel in the line with sufficient quickness to prevent its becoming dangerously slackened, therefore his only alternative will be to haul in the line with the left hand through the rings, and allow it to fall in coils at his feet, until he can find an opportunity to reel it up. I must also emphatically caution him against ever attempting to land a fish before he has fairly turned upon his side, exhibiting his pectoral fins above the surface, and other unmistakeable signs of complete exhaustion, when he may be cautiously reeled in and gaffed. More than nine-tenths

of the fish that escape from bungling and excited sportsmen, are lost from their too eager attempts to secure them, before they are half spent. And as a final warning, I would here remark, that in no case whatever is the rod to be unbent, or the strain removed from the line, until the gaff is securely fixed in the fish, as the hold in his jaws is now torn large, and if the line is relaxed for but an instant, the hook will be certainly thrown out, should he give his head a shake.

Hints on Casting.

The salmon-fisher should not regard it a waste of time to fish and refish any known favourite pool several times over, changing his flies each time ; as a salmon will frequently refuse to rise the first time the flies are drawn over him, but may not be able to withstand a second or third temptation. In eriox-fishing this is more especially the case, and the last of three or four rods over the same pool will stand as good a chance as the first. As an illustration of this, I recollect once when at Felton, on the Coquet, in early spring, a few days after the river was open to the rod, three of us fished several miles of water for a whole day, and secured only a couple of fish towards evening ; whilst an old veteran, who confined himself exclusively to three favourite streams, which he fished over and over again dozens of times, with unparalleled perseverance, from nine in the morning to three o'clock in the afternoon, without even a rise, at last had his patience rewarded, and he landed three fine fish

of six, nine, and ten pounds respectively, in less than an hour.

As the waters to which salmon and eriox generally resort are usually wide and deep, the angler and his tackle do not create so much disturbance and alarm as they do in smaller rivers; hence it is not a matter of such paramount importance to gain the first of the water as it is in trout-fishing, and there will be nearly as much chance of sport with two or three rods, as if the fisher had the whole river to himself, provided the flies he uses differ in colour from theirs; save and excepting always in such pools where they have hooked and played a fish.

Salmon-fishing of all other sports requires the exercise of a vast amount of patience and perseverance, as it is no uncommon thing for the sportsman to ply his rod for hour after hour, and for day after day, without success; while the produce of a lucky hour or two may perhaps put him in possession of as much or a greater weight of spoil than he can carry home. Salmon are even more capricious in their humours for rising than trout. During the whole of a most likely day—with wind, weather, and water in the best possible order, to all appearance—the angler may thrash the water with the most indomitable industry, and perhaps not a single fin will stir from their moody solitudes in the deep, when all at once, as if by some magical influence, perhaps towards the approach of evening, or it may be at any hour of the day, many salmon in the water will be on the alert and rise at the fly, no matter what colour it may be, with the greatest avidity. The same precisely applies

to the eriox. I know an excellent fisher, Mr. M——, of Felton, who flogged away in the Coquet with the most unremitting perseverance on one occasion for three whole days without ever raising a fish, but on the fourth his fortitude was rewarded, as it ought to have been, by the gaffing of no less than thirteen large fish (which I have previously noticed), one-half of which he was obliged to hide by the river-side and carry home at a second trip. May we all have as good luck!

The Salmo Eriox, Bull-Trout, or Sewin.

So far as mere sport is concerned, the eriox, in size, power, and game qualities, undoubtedly ranks only second to the salmon himself; and where they are plentiful, and in the humour for taking, the sport they afford is by no means an indifferent substitute for a tussle with the prince of fishes. Although the eriox may not make quite such a wild and desperate resistance, nor be capable of such a protracted struggle, as the true salmon, yet he is a sullen, bold, and determined fish, and will fully task the utmost powers of the angler to bring him safely to land if over five pounds in weight; therefore the whole of the tackle and implements (flies excepted), and the methods of fishing and playing this fish, are precisely the same as those used for the salmon, while an equal degree of tact and circumspection is requisite on the part of the sportsman.

The salmo eriox, or bull-trout, differs considerably in appearance from the salmo salar or true salmon when

the two are compared together, although many who see them exhibited in our fishmongers' shops do not know the difference. In general shape, the eriox is longer and thinner in the body than the salmon, and the head is larger, and the teeth much stronger and more formidable, in proportion to the size of the fish, while its whole aspect bears a greater resemblance to a huge overgrown common trout. The gill-covers of the eriox are rounder and less pointed in their posterior margins than those of the salmon, and the back and sides, above the medial line, are of a dusky grayish olive, marked with large irregular-formed black blotches, while those of the salmon are of a deep azure blue colour, and the black spots on the sides are more regular in shape and distinctly defined, and of a radiated or star-like form. The caudal fin of the eriox in the adult state is convex or round in the posterior margin, the central ray being the longest; while that of the salmon is concave or lune-shaped, or decidedly forked at every age, the central ray being the shortest. The pectoral fins of the eriox are of a dirty white colour, while those of the salmon are of a dark olive brown or blackish hue. The flesh of the former is rather of a yellowish cast, while that of the latter is of a fine rose pink, and, as a culinary article, very much superior in delicacy and richness of flavour; although the eriox is a very excellent fish when in condition, and fully entitled to take second rank at the board to his more patrician brother.

The eriox generally runs from five to fourteen or sixteen pounds in weight, although a fish of eighteen pounds

is by no means uncommon, and the average weight may be stated at ten or twelve pounds for adult fish. They are thus no contemptible antagonists to deal with, as they are not only heavy and powerful, but also very stubborn and headstrong, and when on the hook exhibit nearly, if not quite, as much game and bottom as the salmon, although scarcely possessed of the same degree of vivacity and unconquerable determination; being more prone to rut about among the stones at the bottom in order to dislodge the hook from their jaws, than indulge in those wild dashing spurts so characteristic of a vigorous fresh-run salmon. Nevertheless a clean eriox will not unfrequently be found a wild enough colt to halter, and imitate, to a considerable degree of perfection, the impetuous rushes and frantic somersaults of the former, so frequently fatal to either rod, line, or hold, as every experienced practitioner can testify, to his mortification.

It is a somewhat singular fact, that at the present time, the eriox is the only species of the larger salmonidæ frequenting the river Coquet, although the true salmon is occasionally met with in the sea all along the coast off the mouth of the river, and though it is a stream to all appearance eminently adapted to the breeding of salmon. And what is more singular still, if true, I have been told that upwards of half a century ago the true salmon was abundant in the Coquet, while only an occasional eriox was to be met with;* but the latter gradually increased in numbers year after year, while

* An idea prevails among the salmon-fishermen on the east coast of Scotland, that the appearance of the eriox in the rivers of that part of

the former as steadily declined, until they finally became totally extinct; and now such a thing as a salmo salar is never seen in this river above its mouth. If this story is correct, the reason of this seems inexplicable, as the total extinction of the salmon cannot righteously be ascribed to the increase of the eriox, as in other rivers, such as the Tweed, where this fish abounds, they are not considered inimical to the propagation of the salmon to such a degree as to threaten their extinction, that I am

the island is comparatively of recent occurrence. Mr. Stoddart regards the eriox to be as voracious and destructive to the salmon-fry as the pike himself, and recommends the destruction of that fish without mercy, at all times and seasons; although he admits that he never remains to spawn on the same grounds as the true salmon, but pushes headlong on towards the sources of the smaller rivulets and feeders, beyond where the salmon ever reaches, and where it is manifest his depredations will be chiefly committed on the fry of his own species and that of the common trout, unless it is a few chance ones that come in his way on his journeys to and fro over those portions of the main river occupied by the parr of the former fish. I therefore cannot believe that the young of the salmon will suffer more from the predacity of the eriox than that of the common trout, or even it may be his own progeny of the previous autumn, which will all be swallowed without much respect to species as they present themselves in the way. Nor do I believe that even the salmon himself will much object to gobble up a few of his own family on occasion. The inference is, then, that the disappearance of the true salmon from Coquet must be due to something else than the multiplication of the eriox. An attempt is now being made to reintroduce the salmon by artificial means.

As the method of fishing for the eriox is precisely the same as for the salmon, it would be quite superfluous to do any more here than mention that the flies ought to be dressed on small-sized salmon-hooks, and be of a rather more sober and uniform colour than the gaudy *lusus naturæ* used for salmon.

aware of, and there are few waters frequented by salmon but what are common to both ; neither can it be ascribed to any material change in the quality of the water, or of the spawning-grounds, or a deficiency of food, as there have been no fresh mines opened out to cause an influx of mineral waters into the Coquet for many years, while the spawning-beds and the supply of food must be essentially the same as in former times. The cause of the change, then, remains shrouded in mystery.

The Whitling—Salmo Trutta.

I have heard it asserted by sportsmen ignorant of ichthyology, that this fish is only to be found in Tweed and its tributaries ; but this is quite a mistake, as the whitling is neither more nor less than the salmo trutta, or white trout, salmon-trout, sea-trout, or whitling—by all of which names it is known in different parts of the country—and it frequents most of the salmon rivers both in Scotland and Ireland. In size this fish generally runs from fifteen to twenty inches in length, and from one and a half to three pounds in weight. It is rather a longer and thinner fish than the other members of the salmonidæ, and is destitute of either black or red spots on the sides, which, together with the back, are of a light grayish olive, while the belly is white and silvery—hence its name of white trout or whitling ; and in general aspect it more nearly resembles the eriox than the salmon proper. Its flesh is of a beautiful pink tint, and in delicacy and richness of flavour is nearly equal to the

best salmon, and much superior to the eriox ; while that it is a distinct species of the genus salmo there can be no doubt. It generally appears in the rivers in July, August, and September, during the grilse season, and usually locates itself in the quieter parts of deep pools, when it not unfrequently rises at the common trouting-flies, especially if they are rather large in size and lapped with gold or silver twist. They will also occasionally take both the minnow and the worm when the waters are in a proper condition for those baits, but it is always advisable to attach one of the special whitling flies, described in the fly-dressing part of this work, as a tail-fly or stretcher, in rivers where they are known to frequent. The Till and the Glen in Northumberland contain numbers of whitling towards the end of summer and beginning of autumn, especially if there has been a flood to enable them to ascend.

Other members of the Trutta family—such as the charr, the gwiniad, the great lake-trout (salmo ferox), etc. —exist in the waters of the British Isles ; but as they so seldom form an object of the sportsman's pursuit, it is unnecessary to notice them farther than a mention of their names.

CHAPTER XV.

A DESCRIPTION OF THE BORDER RIVERS.

The Tyne: North Tyne; South Tyne—Wansbeck—Coquet; Contest with a Two-Pounder in—Good Soils harbour Good Fish—Coquet a "Petted" River—Rothbury Thrum and "Hunting Ned"—The Wreigh—The Aln—The Breamish—Linhope Linn—Moor Flies—The Till—Manner in which Large Trout feed—Till Trout too many for Bunglers—Wooler Otter-Hounds—The Bowmont—Yetholm Smugglers—The Glen—The College—The Becks of the Cheviots—The Tweed—The Land of Scott—The Whitadder—Elmford—Retreat—Strait Loup—Copper Mine—The Blackadder—Kail—Rule—Jed—Teviot.

IN briefly describing a few of the principal rivers of Northumberland and the south of Scotland, the author believes he may impart some useful hints to those who angle these waters, and which may also be found of service in similar streams. He will commence therefore with the Tyne, and extend his notice across the Border only so far as the Whitadder, that stream being the limit of his personal acquaintance with angling rivers; and it is not his wish to convey information upon any matter, for the accuracy of which he cannot personally vouch. As perpetual change from year to year is taking place in regard to the preservation of rivers, it would only be a waste of space to particularize in every case such parts of the rivers as are free, and such as are preserved, more than a passing

notice demands. And regarding any such notices which the author may choose to make, he will only be responsible for such arrangements as are at present, or were shortly previous in existence.

The Tyne.

Starting at the southern limit of Northumberland, and proceeding towards the north, the first river that shall engage our attention is the Tyne proper, which, above tide-mark, from the village of Ryton to Hexham (a distance of about fifteen miles), offers an abundance of streams and good stretches of water, for either fly or minnow; while the bait-fisher cannot almost go amiss to any part. Here the river, besides being regularly fished with the net for salmon, contains in abundance trout, dace, and eels; and at certain parts, an excellent day's sport may be had almost at any time; as there is always plenty of water, even in the severest droughts, either for trout or salmon fishing. The Bywell and Corbridge waters—the former the property of W. B. Beaumont, Esq., and the latter of His Grace the Duke of Northumberland—present the best stretches for the salmon-fisher. At Bywell formerly existed an insurmountable dam, which effectually prevented the fish from reaching the upper waters except during extraordinary floods. But by the praiseworthy liberality of its owner, this fatal obstacle has been entirely removed within the last two years; and the Tyne, once so renowned for the vast numbers and fine quality of its salmon, bids fair to resume

its former high character in the course of a short time. The whole of the Tyne and its tributaries, excepting that portion belonging to the corporation of Newcastle, is now under the protection of an association of the owners, from whom a written permission must be obtained to fish; the Duke of Northumberland, who also owns a large part of the North Tyne, both towards its source and debouchure, grants a limited number of tickets at ten shillings each.

About half a mile above the town of Hexham, the North and South Tynes meet, and, joining together, their united waters constitute the Tyne proper. The South Tyne was at one time an excellent breeding river, either for salmon or trout, but of late years, since such quantities of mineral waters have been thrown into it from the extensive lead mines in the district through which it passes, both salmon and trout have almost entirely deserted it.

The north or main branch of the Tyne rises upon the borders of Scotland, a little to the south of Carter Fell, and pursues a south-east course through the western part of Northumberland, until it is joined by the south branch of the Tyne near Hexham. During its course this river receives a large number of tributaries, the chief of which is the river Reed, which runs into it a short way below Bellingham; and all, for the most part, though only mountain becks, yet well stocked with trout; while the latter is a capital fishing water, especially for fly.

The whole of the North Tyne is a first-class trout

stream, and well adapted for the fly or minnow at any time, being continually broken up into as fine streams and quiet stretches of deep water as can be desired; while the scenery through which it runs is very pretty, if not the prettiest in Northumberland. That portion of it from Hexham to Bellingham runs through a finely cultivated valley; but at the latter place it begins to enter the wild district of the Keilder Moors, through which it wends its way to the desolate regions of Carter Fell, probably as unmitigated a desert of barren moss and stunted heather as exists in the three kingdoms. I may here state that the whole length of the river Tyne, in a direct line from its source on the borders to its mouth at Tynemouth, is upwards of sixty miles.

SPRING-FISHING IN NORTH TYNE.

The spring-fishing for trout in North Tyne up to the end of May is very superior, the trout coming early into condition, of a fair size in general, and taking both the fly and minnow pretty freely at that season. But as regards salmon-fishing, I am sorry to say that it is extremely capricious and uncertain, and that it is only a few days in the season that any sport can be had; although on one occasion I know of seven salmon having been killed by a single rod in one day; and on another, I was a witness to no less than thirteen being taken out of Hargrave's Stream, during the two last days of the season. In an ordinary state of the river, there is too little depth of water on the streams for salmon-fishing;

and it is only a certain time after a fresh that there is any prospect of sport; after the flood has to a certain degree subsided, and when the water has cleared off to a light brown colour. The exact critical time is difficult to hit, as frequently, when both water and weather appear most favourable, the fish may be on the move, and not a single fin will stir to the fly. There are plenty of fine still deeps where doubtless numbers of salmon lie, and which with a good breeze might be productive of sport even when the water is low; but unfortunately the banks of nearly all of them are wooded, quite close to the water's edge, so as to effectually prevent any one from handling a rod in their vicinity, and there are no boats on the river to be had for love or money, with the exception of two or three belonging to private gentlemen. North Tyne is by no means an early river, but few fish visiting it until the latter part of the season in September and October, and there is little to be caught in the shape of salmon in the spring months but kelts.

SALMON-CASTS ON NORTH TYNE.

The principal casts for salmon on this river, from the town of Hexham to its source, are one or two streams close above Hexham; one near Wall Station on the Border Counties Railway, which runs by the side of the river along its whole course, rendering it as convenient to the angler as he could possibly wish for; the Barrasford Water; the Nunwick Water; the Eels; Boat-pool

at Wark ; Lee Hall Water ; Hargrave's Streams, the best cast on the river, midway between Wark and Bellingham ; Reedsmouth Streams, also good ; Bellingham Water ; Tarset ; Fallstone ; and Plashetts.

The whole of these may be easily reached by rail from any part the angler pleases, but if he prefers locating himself in their vicinity, he may command the whole of them either from Hexham, Wark, Bellingham, Tarset, or Plashetts—at any of which places he will find fair accommodation ; while Otterburn will be the best place for the angler to take up his quarters on the Reed.

Several becks and burns enter the North Tyne, all containing trout more or less, but none worthy of special mention.

The Wansbeck.

This stream takes its rise within three miles of Elsdon, nearly in the centre of Northumberland ; whence it pursues an easterly course, passing the town of Morpeth, and discharging itself into the sea, after running a total distance of about twenty miles. Good fishing is to be had in this river from the neighbourhood of Meldon Park to Morpeth with the fly, when it is in proper order after rain ; while between that town and the sea there is abundance of deep water, containing heavy trout, which affords an excellent arena for the drop or trolling minnow, and the worm, or the different kinds of dipping and shade-fishing ; but the banks in general, on this part of the river, are too much encumbered with wood to admit of ordinary fly-fishing. The

eriox may also be met with in the lower part of the river.

The Coquet.

The above is deservedly esteemed one of the finest trouting-streams in the north of England, being of sufficient breadth to admit of the full sweep of the longest line a single-handed rod can command; while it abounds in fine streams and still deeps, alternating with each other, and runs over a clear gravelly bed, with flat shelving shores, unencumbered with brushwood or other impediments: just such a river, take it all in all, for trout-fishing, as a veteran angler would make, were he endowed with creative power. In fact, I consider the upper waters of the Coquet, from Windyhaugh (among the Cheviots, where I have known a single rod creel sixteen dozen of trout in one day) to the village of Rothbury, twenty miles below, a magnificent arena for the angler's operations. In this part of its course among the hills, the most splendid streams are everywhere met with, leaping here and there over projecting ledges of rock, into deep dark pools below, and literally swarming with fair-sized trout, which rise like skip-jacks, in twos and threes together, on a favourable day, at almost every cast; and to find three lively finsters tugging away at each other like newly-coupled puppies, in a boiling eddy, beneath a rocky ledge, is no uncommon occurrence in this *angler's paradise;* while for minnow-spinning, the deep, dark, eddying pools are unrivalled. However, I may here remark, that trout do

not take the minnow so freely in the higher parts of our mountain streams, as in the lower and deeper parts of their course; but here the worm is omnipotent, especially at the commencement of a fresh. This I know from experience, having most perseveringly and carefully fished the higher portions of several of our rivers with minnow, with only indifferent success, just after a fresh, when the water was of that peculiar brownish cast somewhat resembling a dilute solution of porter, so favourable to minnow-trolling in all rivers. I believe the chief reason is, that as but few minnows are to be met with in the colder waters of our mountain streams, the trout, in such localities, will be comparatively unacquainted with them.

I may also here observe, that the whole of the lower course of the Coquet, from Rothbury to the sea, is an exceedingly fine fishing river, abounding in excellent stretches of water, well stored with large heavy trout, and containing, also, numbers of the salmo eriox, or bull-trout, which vary from 5 to 18 lbs. in weight, and afford to the salmon-fisher nearly, if not quite, as good sport as the salmo salar, or true salmon, of similar weight.

The generality of the trout in the upper parts of the Coquet are very nearly of the same stamp as those of the Breamish—viz., from 5 to 10 or 12 inches in length; while a welter of 1½ or 2 lbs. in weight is by no means rare to meet with. I recollect, last season, a friend, who was plying his craft near to Lynn-Briggs (a hamlet on the banks of the river), quietly dropped his flies over a ledge of rock into one of these deep dark

pools I have described above, when it was instantly appropriated by a burly two-pounder the moment it touched the surface of the boiling eddy below. Quick as thought the barbed steel was securely fixed in his nether jaw, when our friend (the fish) immediately commenced to dance the highland fling in the most lively manner imaginable ; dashing round the circuit of the pool like a wild colt newly haltered, and making the reel hum like the fan-blast of an iron factory. After a sudden run close in to the foot of the ledge on which my friend was standing, he next made a furious dash to the farthest extremity of the pool, where the river leapt over another ledge of rock into a similar pool below, with the evident intention of clearing at a bound the foaming barrier between, and cutting, "sans ceremonie," all farther acquaintance with the unwelcome intruder upon his native liberty, with whom he was engaged in a death struggle for life and freedom. But piscator, being an old and wily veteran in the art, "showed the prisoner the butt," and kept as strict a line as a due regard for its strength would allow, in order to defeat this scheme. The trout, supremely indignant at the unwarrantable obstinacy of its captor, in a perfect paroxysm of rage immediately made a most animated display of his saltatory powers, by completing a set of clever somersaults high in air, to the imminent danger of both rod and line. But in this case, as in every other, where mere animal force, however plucky, is pitted against human skill, the latter eventually triumphed ; and this game finster was finally hauled into shoal water, exhausted

and gasping, upon his broad side, with his brilliant orange pectorals quivering in the breeze. His death was duly honoured by a lusty whoop on the part of my friend, who exulted little less in his victory than Wellington did in that of Waterloo; and on hanging him upon my pocket-scale, he was found to weigh just 2 lbs. But in this part of the river such are few and far between.

In the Coquet, as in most other rivers, the farther we proceed downwards towards the sea, the heavier the trout become; because in the stony beds of the higher waters of all rivers, fewer worms, caddies, slugs, and other bottom-baits, are to be found, than in such as run over alluvial soils in the warmer parts of the country. And as it is a well-known fact, that different qualities of soil produce oxen and sheep varying widely in size and quality of flesh; so in like manner the quality of soil through which a river runs has a marked influence upon the size and quality of trout, by affording all kinds of bottom-food in greater variety and abundance. The plump-shouldered, deep-bellied, small-headed denizen of the shady deeps in the mead blazoned over with the silver daisy and golden buttercups, is a very different personage, in his brilliant stars and portly presence, from his lank, large-headed, sooty brethren, inhabiting the inky pools of the moorland burn, surrounded only by heathy wastes and barren peat-mosses. The influence of food on the size and quality of trout is as strongly exemplified in the Coquet as in any other river I am acquainted with. Those in the lower part of its

course, where the soil is rich, the climate warm, and all kinds of food in abundance, are in general large fine fish, and of much better quality as an article of diet than those in the upper part, where the bed of the river is stony, the soil poor, and the climate cold and backward. But upon the whole, the generality of the trout in the Coquet are not of such fine quality for the table, as those of either the Till, the Glen, or the Aln, in which rivers the majority are pink-fleshed.

On most occasions, in favourable weather, splendid sport may be had in the Coquet, yet it bears the character of being what anglers term a rather "petted" river. That is, it may sometimes happen on a certain day, when both the water and weather seem in the best possible state for sport, that not a single fish will stir, either at fly, minnow, or worm, let the angler do as he may; from what cause it is difficult to say. I recollect fishing this identical stretch of water a few years ago, in the month of May, when, one fine afternoon, with a brisk westerly breeze, I took no less than three dozen fine trout from a single stream a short distance below the wooden bridge at Holystone, with the blue dun and gravel flies, and returned in the evening with nearly nine dozen fish in my creel; although, on the next day, when both the water and weather were in equally good order to all appearance, I found my good luck had fled. I tried over the same streams, with not only the same, but every other species of fly at all appropriate for the season, without even hooking a fish until three o'clock in the afternoon, when I reached what is called Sharper-

ton Stream ; then they commenced to feed all of a sudden, and for the space of half an hour the surface of the water was kept in a perpetual boil with rising fish, and I succeeded in creeling twenty-three trout, in little over as many minutes, after landing two, and on two occasions three at a time, without ever moving more than a yard or two up or down from the spot. They then as suddenly ceased to rise as they had begun, and although I continued fishing for upwards of an hour afterwards, both up and down the river, I never could take another trout that day. For this capricious behaviour in trout it is difficult to account ; but every experienced sportsman will probably have met with it, in many other rivers besides the Coquet. Even in their best humours, I have frequently observed the trout in this river feed by similar fits and starts. For the space of half an hour or so, not a single fish will be seen to move ; then all of a sudden, perhaps during a sunny blink, "the feed comes on the water," as the native fishers term it, in the shape of a fresh flight of natural flies, and the whole river is instantly thrown into commotion with their risings ; when, if the flies the angler uses are fair counterfeits of those they are feeding upon, he may speedily turn them to good account.

ERIOX OR BULL-TROUT IN THE COQUET.

The eriox or bull-trout frequents the Coquet, and affords excellent sport, little if at all inferior to the true salmon, as they are strong, game fish, attaining occasion-

ally to 16 lbs. and 18 lbs. in weight, while 10 lbs. or 12 lbs. is an ordinary size. It is not a little singular, as I have noticed in a previous chapter, that on the appearance of this fish somewhat about eighty years ago, the true salmon, which till then visited the Coquet in common with other rivers, began gradually to disappear, until, for a long time back, not one has been ever known to enter its waters. What the cause may be, few will be able to conjecture. Until the present fishery act came into operation, the eriox were entirely prevented from entering the river after the season opened, by a lock at the mouth of the river at Warkworth, unless during a very high flood ; and the only sport to be had with this noble member of the salmon tribe was in the early spring, when a few mended kelts, that had lain in the river over winter, were to be caught, with an occasional clean fish after a high flood. But now that the lock is furnished with a fish-ladder or pass, sport may be enjoyed with them during the whole of the legitimate season. And as the spawning grounds in the head waters of the Coquet are inferior to few, I have no doubt the increase of this fine member of the salmonidæ will keep pace with the care taken to protect it from the wholesale spoliation it used a few years ago to undergo during close-time, from regularly organized bands of midnight marauders, who not unfrequently were in the habit of capturing fifteen or twenty horse-loads of spawning fish from a few miles of water, during the course of a single night, by means of the torch and leister. This may seem incredible ; but I have heard it stated by an old

man who was in the constant habit of participating in this public robbery.

The best portion of the river for eriox-fishing is from Weldon Bridge downwards. Here there is a good inn for the sportsman's accommodation, and the landlord can grant a ticket for a certain portion of water above bridge. At Felton, a little lower down, there are some prime casts—viz., the Diamond Hole, Acton Streams, the Chapelhaugh, Brainshaugh Pool, and the Guisance Water—all of which are within reach of the village of Felton, where excellent accommodation may be obtained, and where the tenant of the Northumberland Arms Inn has the privilege of granting tickets for some water above the village, specially preserved for the visitors to the inn.

The whole of the Coquet is now under the protection of an association of the proprietors, the same as the Tyne, who have each the privilege of granting a ticket for their own water, at a charge of, I believe, 2s. 6d., to go towards defraying the expense of watching, etc.

Between Weldon Bridge and Rothbury, the trout-fishing is excellent, and the trout large and of fine quality, but the river is rather incommoded by trees in some parts. Between Rothbury and Holystone, nine miles above (where there is a well of crystal water, in which tradition says St. Paulinus baptized 3000 converts on one occasion, in the primæval ages of Christianity), the whole river is as beautiful a specimen of a trouting-stream as the angler can imagine. Shelving gravelly shores, without bush or impediment to mar the operations of the most careless practitioner; while an endless succession of stream

and pool succeed each other, literally swarming with fair-sized, but by no means large, trout. The same may be said of the water from Holystone to near its source in the hills beyond; but in these higher regions the bed of the river becomes more stony, and rippling streams, leaping headlong into dark rock-bound pools, become the order of arrangement; while the trout increase in numbers, as they decrease in size and quality.

HOLYSTONE INN.

At Holystone there is an excellent new inn, recently erected for the accommodation of anglers; and at the lonely and secluded village of Alwinton, some three miles above, the angler may comfortably locate himself, and extend his operations as far as—or beyond if he chooses—the Windyhaugh Water, about ten miles higher, where I have known no less than sixteen dozens of trout to be taken with one rod during a day's work. If that is not sufficient to satiate the most greedy angler that ever threw a line, I know not what will.

THE THRUM.

About half a mile down the river from the village of Rothbury, and immediately below an antiquated corn-mill, with some very wild and rugged scenery behind it, is what is called the "Thrum." What this word means in the language of a former race of inhabitants, I know not, but the said "Thrum" is neither more nor less than

a narrow chasm between two huge trap-rocks, about eight or nine feet wide, through which the entire waters of the Coquet surge and grind their way with inconceivable violence and fury. In its natural state, it used to be much narrower at the top than at present, as a portion of the rock was removed a few years ago, in order to widen it, in consequence of a poor child being drowned while attempting to leap it in play. A rather daring feat was performed here a few years ago by the late Mr. Edward Donkin of Tosson, whose passion for fox-hunting, and game qualities as a sportsman, rendered him a local celebrity of no little fame, and procured for him the usual soubriquet of "Hunting Ned." Perilous as the attempt may seem, on one occasion he actually leapt this yawning chasm, surcharged with its black and raging torrent, upon horseback, while following his favourite sport; without scathe or injury, as the result fortunately turned out. The leap itself, so far as mere breadth is concerned, was, of course, of no importance whatever, but the extreme danger consisted in the horse's feet slipping upon the surface of the hard rock, worn and polished as smooth as glass, and the fearful violence of the raging torrent below, seething and boiling like a miniature Maelstrom.*

Considering the violence and impetuosity with which the waters of the river rush through this narrow gorge, is

* The late Captain R——, an intimate friend of the author's, subsequently purchased the identical horse which performed this feat, and hunted him several years afterwards. He was of a peculiar colour—a mouse-dun.

it not wonderful that many hundreds of eriox annually contrive to force their way through it, on their way to the spawning-grounds above? What a vast amount of muscular power this fish must possess!

The Wreigh,

a small river running from the north-west, joins the Coquet at the village of Thropton, a couple of miles above Rothbury. This little river abounds with trout, and affords excellent sport after rain, and furnishes favourite spawning-ground for the eriox, up which they swarm in hosts in the autumn. Hundreds of them, in time past, annually fell victims to the cupidity of the poacher, from the ease with which they were taken out of its tiny pools, and hundreds more, I am afraid, will share the same fate, in spite of every vigilance. The eriox is a much more difficult fish to preserve than the salmon. The former persistently seeks out the most tiny rivulets it can find, in which to deposit its spawn, while the nobler fish sticks by the head waters of the main stream.

The Aln.

Proceeding in our northward course, we next come to the Aln. This small river takes its rise on the east side of the Cheviots, about midway between the sources of the Breamish and the Coquet, and a little to the south-west of the village of Alnham, whence it pursues a course nearly direct east for about twenty miles, and, passing

the county town of Alnwick, falls into the sea at Alnmouth. The quantity of water in this river is rather scanty at ordinary times, until it reaches the village of Bolton, about eight miles west of Alnwick, when it at once becomes a deep and sluggish stream, from the artificial obstruction to its waters of a couple of mills, which dam them back for a considerable distance. The greater part of it, however, below the village of Whittingham, contains good streams (well stocked with fine trout of first-class quality and flavour, most of them being pink-fleshed), and affords excellent worm or minnow fishing; but its waters, running for the most part through a clay soil, are too opaque and muddy for the fly. Above those mills, there is capital deep still water, containing large fish, well adapted for the drop or trolling minnow, described in a former chapter.

The trout in the Aln are superior to most in the north of England for size and quality; especially in the lower portions of the river, where their flesh is rose-coloured, rich in flavour, and quite equal to the best specimens of the Till.

Nearly the whole of this river, from a little below its source to below the town of Alnwick, is strictly preserved; while that portion of it which runs between that town and the sea, though free to everybody, is scarcely worthy of notice at present, as the whole of the trout there were poisoned a few years ago, by an eruption of the pent-up mineral waters of an old colliery, which broke their way into it, through the medium of a burn which discharges itself into it in Huln Park, and

it has never since recovered from the calamity. Excellent fishing might be had in most parts of the Aln, were it not for the illiberal and niggardly spirit with which it is preserved. But it is a dark night that has no star, and I am happy to say that the general character of the proprietors of this river is in somewhat redeemed by the liberal-minded and excellent owner of the Broompark estate, Brian Burrell, Esq., who never refuses the application of the legitimate angler for a day's fishing. And we, in common with all our piscatorial brethren, cordially wish that his waters may ever continue abundantly stocked with fish, and that he may enjoy sport to his heart's content for many a long year to come; for he deserves it. And I will here observe that a day's fishing in his waters is worth the asking for; and though the numbers taken may be not so great as in some other rivers, yet if the drop or trolling minnow is skilfully used, the angler will find every fish he is fortunate enough to get hold of worth the trouble of landing.

Undoubtedly, the best method of fishing the deep portions of this river above the mills, is, as I have before said, with the drop-minnow; but it is equally well adapted for worm-fishing with the float; when ground-baiting, as previously directed, may even be called into requisition to draw the fish together, if the angler wishes to make the most of his time; but the current is too still for the successful use of the spinning minnow, and the water too opaque for the fly, unless it is some very large one, such as the green or grey drakes, which I have no doubt might be successfully used, with a good breeze,

during their season; as also the alder-fly, stone-fly, or any conspicuous burly fly. An occasional perch is also to be met with, and abundance of fine eels. And there is one advantage attending this part of the Aln above the dams, not possessed by most other streams, that it always contains plenty of water, and is constantly in order for fishing, even during the severest droughts; in which respect it very much resembles a lake. I would also beg to remind the angler intending to practise on this stretch of water, that a landing-net will be an indispensable article, as the banks, mostly of clay, rise perpendicularly out of the water. An occasional salmon, and a few bull-trout, sometimes enter the Aln below Alnwick, but their farther progress is arrested by the mill-caulds at that place.

The Breamish,

the designation of about fifteen miles of the head-waters of the river Till, though rather small and rapid, running, as it does, over a shallow, gravelly bed, nevertheless contains numbers of fine streams, well stocked with moderate-sized trout; with a few ranging from half a pound to three quarters, and an occasional *rara avis* of one pound in weight. In autumn, when the fish in the lower parts of the river run up to spawn, and again in early spring, when they return from the small becks in the Cheviots, after completing that process, very heavy trout are occasionally to be met with, doubtless the denizens of the deeps of the Till or Tweed. A leviathan, weighing 5 lb. 8 oz., was captured with minnow one

evening in the Breamish in the summer of 1847, by the late John Carr, Esq. of Hedgely, the stuffed skin of which is now in the possession of a brother of the author's. At those seasons, the river is generally stocked with a fair proportion of good-sized trout, which usually remain until the occurrence of a flood induces them to proceed either upwards or downwards, as the season may be; when excellent sport may be had, both with fly and minnow—especially the latter, during a moderate fresh in the river. To give an idea of the excellent baskets of trout which may be obtained in the Breamish at certain seasons, I killed with fly, one very cold day in the beginning of April, and while a strong north-easter blew directly up-stream, 4½ dozen trout, 18 of which were from 12 to 15 inches in length—a by no means despicable dish to be furnished by any ordinary river. Even during any part of the season, with the river in favourable order, it is seldom that any one of ordinary skill returns without two or three fish of three-quarters of a pound; and if it were preserved, as most rivers are now-a-days, I do not think there would be a better fly river upon the Borders. But, as it is almost the only open water in that part of the country, it is so unmercifully flogged by every whipper-snapper who can handle a willow wand, that I should think every living fish it contains must have felt the sting of "the green-tailed fly," before the season is over. I myself have met no less than thirteen fishers, within a reach of a couple of miles of water, all industriously flogging away with the most unremitting assiduity. A motley mob of cobblers,

parsons, joiners, doctors, tailors, publicans, and sinners of all ranks and denominations, and of various grades of wickedness; enough to create sufficient disturbance to drive off every living fish in the river.

The whitling is occasionally caught in the Breamish, and eriox ascend it in numbers in the autumn to spawn.

Specimens of the beautiful silver-white—a variety of the common trout, having the belly of a brilliant silvery hue, with pinkish white fins, and said to be only found in the Tweed and its tributaries—are not unfrequently met with in the Breamish.*

As a fly-fishing stream, the Breamish is difficult to excel in the spring, from the middle of March to the middle of May, before the supply of water becomes scant; or at any season after a fall of rain; but in the droughts of summer, the water gets so low, as to set all angling operations at defiance. But again, towards the autumn, when the trout are migrating upwards to the spawning-grounds, excellent sport may be had.

The Breamish takes its rise a few miles to the south-west of Cheviot, and after descending in an easterly direction for about eight or ten miles, emerges from the mountain range through a wild and romantic gorge called the Ingram Glitters, whence it pursues its course north-east, through a highly cultivated and delightful valley, winding like a snake basking in the sun among the verdant haughs of Brandon, Hedgeley, and Beanley. The latter ancient village was celebrated in the times of

* It has been recently ascertained that the silver-white is the sea-trout or whitling in the grilse state.

border warfare as the residence of the Warden of the Marches, being what was termed Inborough and Outborough between the rival kingdoms of England and Scotland. A baronial court held here by the earls of Northumberland only ceased to hold its annual sittings about ninety years ago. Beanley can also boast of its gallows-law, now the site of a peaceful shepherd's cottage, where doubtless in times past many a quivering culprit expiated his offences. At least, the name is ominous enough. After passing Beanley, the Breamish strikes almost due north, and, on arriving at Bewick Bridge some eight miles below Ingram, it assumes the name of Till. As the waters in this river are but scanty, and its course rapid over a clear gravelly bed, it is only after rain that much sport can be expected, when first the minnow, and then the fly, are used with much success; while in the droughts of summer almost nothing can be done, as its shores are flat and shelving, and there is nothing to conceal the person of the angler, otherwise he might probably succeed in obtaining an occasional dish with the worm, caddis, or maggot, or by dipping with the natural fly even in the finest water. The Breamish trout are remarkably particular that the artificial fly should exactly resemble the natural one upon the water at the time. A shade or two of colour will make the difference between an empty basket and a full one.

About four miles above Ingram, the Breamish is joined by the Linhope Burn, which runs into it from the north, and at about a mile up this burn is the locally celebrated Linhope Linn, dear to all the young belles in the neigh-

bourhood as the destination of many a jolly pic-nic. Here the waters of the burn form a cascade of thirty-three feet over the face of a rock of porphyry, and fall into a deep inky black basin below, of an oval form, and worn to a great depth by the continual action of the water in the same hard and solid material. This basin is inhabited by a numerous fraternity of hungry little trout, as black and soot-begrimed as the most sable knight of the duster. On one occasion I captured nearly a dozen of these negro-like minikins with worm, during the time occupied in discussing the contents of a sandwich-case by its margin. It is rather a curious fact, that above this fall, which it is quite impossible for either trout or salmon to ascend, the burn contains quantities of small trout; another gentleman and myself one day taking no less than three dozen with worm, out of a single pool about a mile above the linn.

Here, among the mountain burns, worm is the bait *par excellence*, and almost the only one that can be used in such places, as their beds are so completely covered with large boulders, under which the fish lie, that it would be next to impossible to use the fly. And if the angler is here careful to keep his person concealed, and can manage to guide the bait, without any sinkers on it, between and underneath the large stones, he may take almost as many trout as he likes, especially after a fall of rain, when I have known sixteen and eighteen dozen being killed; but few of them will be longer than the sportsman's finger, and many of them not so long, if he is a tall man.

The same description and method of fishing will

apply to the high portions of the Breamish itself, unless it be during a moderate flood, or immediately after a considerable one, when excellent sport may be had with the fly. The best fishing is to be had here in the latter part of the season, from August to the end of September, when fish of considerable size may frequently be met with in these high regions, to which they then migrate for the purpose of spawning. Any rather large dark-coloured fly, dressed full and burly, will succeed best in mountain districts, where the fish seem more homely in their tastes than in the better fed waters of the lowlands. The following are the flies best adapted for moorland waters :—The red and black hackles ; smoky dun hackle, No. 6 of the standards ; dun fox, black gnat, little dark dun, blue dun, tawny fly, ash fox, ashy dun, crane flies, great light dun, little light dun, hare-ear, and woodcock ; great whirling dun, stone-fly, sooty dun, sand-fly, case-winged orange fly, during a fresh in the water ; cream camel, small black fly, barm-fly, red and black ants, fern-fly, etc.

In the Bleakhope Water on the Breamish, a large headed, lank-bodied, dark-coloured fish of 2 or 3 lbs. in weight is sometimes met with, locally called *black grilse*. The body of this fish is long enough to weigh 5 or 6 lbs., if it were plump and of proportionate girth to its length, as other fish are when in condition. These I suppose to be either bull-trout, whitling, or large specimens of the common yellow-fin which have ascended to spawn during the autumnal floods, and having entered some of those deep, inky, rock-bound pools, which here abound,

and in which they are generally found, either cannot, or are not disposed to leave them again ; when the mossy nature of the water, and the scarcity of food, will soon transform them into their present type.

The Till.

After leaving Bewick Bridge, and becoming Till proper, this river soon settles down into a deep sluggish stream, which slowly wends its sullen way between abruptly confined banks of sand and clay, in many places so densely fringed with alder and willow as to seriously impede the operations of the rod, and finally discharges its waters into the Tweed at Tillmouth, nine miles above Berwick-upon-Tweed.

The Till proper, upon the whole, is anything but an agreeable river to fish ; the steepness and confined nature of the banks, where they are free from wood, rendering it very difficult to conceal the person from the fish, while in other places the banks are so much overgrown as to render the use of the rod almost impossible, except for dipping or shade-fishing, by means of which very fine trout may be killed. Were it not that the bed of the river, consisting for the most part of fine sand and mud, was so encumbered in many parts with sunken trees, old piles, and other impediments as to rack the patience of the most Job-like sportsman, the Till would be the *beau ideal* of a minnow-trolling and worm-fishing water. But as it is, I have lost more sets of tackle in it in one day than I have lost in other rivers in a whole

season, and this in spite of the greatest caution. Over and above those natural impediments, the farmers here have adopted a perverse method of repairing any breaches in the banks by cramming masses of dead thorns into them, with the brush towards the stream, while the root ends are covered with soil and turf. These are exceeding great nuisances to the angler, and in many cases render it utterly impossible for him to fish some of the finest stretches of water.

Towards the mouth of the Till, below the pretty village of Etal, the character of the river considerably changes for the better; the banks are less encumbered with bushes, and the water, though broad and deep, is more broken up into streams, and below the weir contains a fair sprinkling of salmon, grilse, bull-trout, and whitling, besides some very large specimens of the common trout of occasionally 2 or 3 lbs. or more. Pike abound here and there over the whole of the Till proper, with also a sprinkling of perch (I once caught one of 1¼ pound weight), and no end of eels.

QUALITY OF TILL TROUT.

The majority of the trout in the Till are large, pink-fleshed, rich-flavoured fish, and by far the best for the table of any I know of in the north of England, with the exception of those of the Aln, which very much resemble them in size and quality, both being well-grown, deep-bellied, thick-set fish, with small heads and brilliant colouring. In weight they will be found to vary in a general way, from half a pound to a pound and a half,

with an occasional two-pounder in a day more than ordinarily lucky. But the worst thing attending them is, that they are far from numerous, full fed to repletion, and lazy and capricious in the extreme, and at all times bad to capture by even the most tempting baits used in the most scientific manner. One dozen is considered to be a very good day's work for the most accomplished angler, and that also on a more than ordinarily favourable day; while I would warn the more sanguine votaries of the craft, who may choose to woo this sullen stream, that they must neither be much surprised, nor more than usually disappointed, if after exhausting all their skill and ingenuity for hours in endeavouring to win the smiles of fortune, the fickle jade may ultimately jilt them, and oblige them to return with elongated visages and creels totally innocent of contents. Two dozen and a half of trout is the largest basket I ever succeeded in making on the Till in the neighbourhood of Wooler, and I have fished it frequently, and under every variety of weather, water, and season, with minnow, worm, and fly; and few of the best anglers of the district have exceeded this by fair means during late years. But then a dozen even of Till trout, both as regards weight and flavour, is worthy of being called a dish of fish, and of more value for the table than three times the number from most other streams.

SHYNESS OF TILL TROUT.

The majority of the trout in this river seem to repose the greater part of their time on the sand-beds at the bottom, and feed almost exclusively on worms, caddis,

and other aquatic larvæ which abound amongst the rich soil, old piles, and wreck, so plentiful in every part of its bed; and from this habit their bellies, especially those of the larger fish, will be found quite flat on the under surface, and angular towards the sides, and are well-marked specimens of the bottom-feeding fish spoken of in a former chapter. Such will seldom rise at the artificial fly, and can only be taken with their favourite baits —the worm, the minnow, or the caddis. Others again, more inclined for insect food, may be seen on a calm afternoon or evening, quietly sailing round in circles in the still pools, just beneath the surface; and ever and anon popping up the tips of their noses, and gulping down the natural flies fast enough. When large trout are feeding in this manner, the only disturbance they create in the water is an almost imperceptible ring of a few inches in diameter immediately round the spot; no splash is made by those crafty smooth-going codgers, as when smaller fish are on the feed, and the whole method of proceeding plainly indicates that it is food not play that they are in pursuit of. I have frequently observed large trout thus engaged in the still deeps of the Till and Bowmont, between three and four o'clock in a calm June morning, when nought else was astir save the otter-hunter and the lark. And at this season, during the heats of summer, the only chance the angler will have of taking a single fish, is from daylight to six in the morning; when, if he skilfully uses a well-scoured worm, I doubt not he will be well rewarded for his early rising.

The paucity and shyness of trout in the Till may be

chiefly ascribed to the number of otters * which infest the stream, and the shoals of fishers on the open water, from one year's end to another. I have been told by a veteran sportsman, that a few years back (before every cobbler's apprentice who has a spare halfpenny to buy gut with spends his leisure time in thrashing the water into spray, and frightening the trout into hysterics, during every season of the year, the depth of winter not excepted) it was regarded as nothing extraordinary for a fisher of ordinary skill to fill his creel with excellent trout in

* This is owing to the bushy, sandy, and confined nature of the banks, and the depth and stillness of the current; and doubtless they make very serious havoc amongst the finny tribes. It is calculated that a single otter will consume no less than a ton of fish annually. A small pack of otter-hounds, kept a few years ago by that accomplished and spirited sportsman, Mr. John Thomson of Wooler, succeeded in killing no less than twenty-one of those animals in a couple of seasons; chiefly in the Till, Tweed, and Whitadder; which would for a time materially thin the ranks of these amphibious poachers; and considering that he was the means of saving between thirty and forty tons of living fish from destruction in two years, besides affording those who chose to accompany him a vast amount of the most exciting sport, I think he was entitled to the gratitude of every angler in the district. But now, since the pack are discontinued, those depredators will be probably getting as numerous as ever.

I have been told that the otter prefers the pike to any other fish, and if he confines his ravages to these aquatic devastators of our streams, he will rather be a friend than an enemy to the trout-fisher. But I am rather afraid that Master Otter will regard all as "fish that comes into his net," and treat them accordingly; and that he will not be scrupulous enough on this point to pass by a fine trout without molestation. I have seen the remains of trout, on many occasions, lying upon the banks, close by the side of pools abounding in pike, which had evidently formed part of an otter's nocturnal repast.

a few hours. But now no such feats can be performed under any circumstances; and if the angler succeeds in landing ten or a dozen fish, he may be content. Numbers of pike are also becoming generally disseminated over the river, and they doubtless will materially help to reduce the trout. The Weetwood Water, Doddington Bridge Pool, and the Fenton Water near Wooler, as also the stretches of water near Ford Castle and the classic field of Flodden, are favourite haunts of pike, and will afford any sportsman who enjoys a tussle with this tyrant of the streams, ample opportunities to gratify this sort of angling.

FLY-FISHING ON THE TILL.

Unless a brisk breeze is blowing, it is almost useless for the fly-fisher to waste his time on the Till, as the river has excavated for itself a narrow bed, sunk deep below the general surface; and as it is nearly all still water, with the exception of a few streams in certain parts, it is a very difficult matter for the sportsman to keep out of view, unless there is a good curl on the surface; and it requires rather a strong wind to effect this, as an ordinary breeze, which will put a fine ripple on exposed waters, will scarcely ruffle the surface, so much protected is it by the banks. A few fine fish, however, may be often taken with minnow towards dusk in the summer evenings.

Flies for the Till must be dressed rather small, as the trout give a decided preference to minute flies. Most of those common to northern localities, if neatly dressed and of small dimensions, will do execution during their

respective seasons. The dun, green, and gray drakes are bred here in great abundance, and will be well taken in a brisk wind during the time they last; while the small duns and blacks are general favourites at all seasons, as also the hare's ear and pheasant, from March to August. It is necessary in this river, where the fish are more than ordinarily wary and suspicious, that the whole of the lines and gut used should be of the most delicate and gossamer proportions, consistent with adequate strength; and that the line must be cast with the utmost lightness and delicacy, so as not to make the slightest disturbance on the surface, otherwise the game is up, and every fish within sight will be off to earth, in something less than the twinkling of an eye—as the trout in this river are singularly expert at detecting the most scientific attempts at dodgery that the most proficient adepts in the art of deception can devise.

It may be well to state, that none but proficients need try their hand in the Till. It requires very fine fishing indeed to command any success in this river; and I have seen some self-conceited persons, who imagined that they were *au fait* in the art, because they could manage to throw over their heads a few hungry and unsuspecting fry from a mountain burn, cut a pitiful figure indeed as they returned from the sulky Till, with rueful countenances, wet clothes, and empty baskets.

I must not omit to mention that an attendant with a landing-net will be almost indispensable on this river, as, from the nature of the banks, and the delicacy of the tackle (compared to the weight of the fish) the angler is

obliged to use, he will find it no easy matter to safely land his captives without their assistance.

The whitling, running from 2 to 4 pounds in weight, and in excellence of flavour nearly, if not quite, equal to the salmon itself, ascends this river in considerable numbers in the months of August and September, when they occasionally take either minnow, worm, or any large rather gaudily-dressed fly; especially if lapped with gold or silver twist.

The pike-troller can scarcely pitch his tent in a better neighbourhood than the Till, if he can now and then patiently submit, without using "unbecoming" language, to leave the whole of a cherished set of tackle fast anchored in what may be a portion of the trunk of the giant baobab of Senegal, or the remains of the hull of Noah's ark, for aught he knows to the contrary.

The best stations for fishing the Till are Chatton, Wooler, Ford, and Etal; and for the Breamish, Powburn. In all of which villages there are small inns, where sufficient accommodation can be obtained to satisfy any sportsman of moderate requirements; but if he is too fastidious in his taste to content himself with an occasional dish of ham and eggs, then he had better remain at home, and fish for minnows in his drawing-room aquarium.

From above the village of Chatton to Ford, a distance of twelve or thirteen miles, the whole river is open, and the angler is at liberty to fish wherever he chooses, without let or hindrance, for any description of fish; but I believe the Etal water is strictly preserved.

The Bowmont.

The next river is the Bowmont, which takes its rise from a spur of the Cheviots, in Roxburghshire, about ten miles east of Jedburgh, and a few miles to the south-west of Yetholm, which it passes, and then pursues an easterly course until it reaches Kirk-Newton, in Northumberland, where it receives the College, a small river, or rather stream, descending directly from the west end of Cheviot, and then assumes the name of Glen; under which name the united waters flow for five or six miles farther due east, until they reach the Till, at Ewart. The whole united courses of the Bowmont and Glen cannot much exceed twenty-five miles.

The whole of the Bowmont is a fine, clear, streamy water—free from encumbrances of any kind. Above Yetholm, though rather scant of water in dry weather, it contains an abundance of fine streams, well stocked with medium-sized trout, and is surrounded on all sides by fine green hills, constituting the best highland sheep-walks in Britain. After a moderate fall of rain, the angler, in search of an agreeable excursion, cannot do better than visit this locality, both as regards sport and delightful pastoral scenery.

After passing Yetholm, the Bowmont pursues an easterly course, through a highly cultivated warm valley, and is an excellent fishing water either for the fly-fisher or the minnow-spinner after a freshet, besides having some good casts for the worm. While at Canna Mill, about half a mile above Kirk-Newton, there is a deep

secluded mill-dam, overshadowed on each side by overhanging woods, in which there are numbers of pike, besides large trout. But the latter can only be taken by dipping with the natural fly, or shade-fishing with worm, caterpillar, or caddis, on account of the wood. This river runs both over a bed of fine gravel and mud in some parts, but both alike perfectly free from snags and other nuisances; while the shores are, for the most part, flat and shelving; thus rendering it upon the whole a very pleasant river to fish. The trout are medium-sized, well-grown fish.

I recollect being on the banks of the Bowmont early one morning in July, just at daybreak, between two and three o'clock, and putting a couple of moderately large yellowish dun moth flies on my cast, soon hauled ashore half a dozen fine large trout; but when daylight had fairly set in, they suddenly ceased to rise either at the moths, or at any other kind of fly I could think of; and as there was a slight freshet in the river, from a heavy shower the previous day, I at once attached the minnow-tackle, and trolled during the remainder of the day, and on discontinuing operations, had every reason to be satisfied with my day's work; having taken five dozen fine fish, several of which weighed three-quarters of a pound.

The Glen.

We come now to the Glen, the name which the Bowmont assumes after receiving the College at Kirk-Newton, which after winding through the pleasant haughs

of Lanton, past Coupland Castle and Ewart Park, for a distance of five or six miles, discharges itself into the Till at Ewart.

The whole of this river is at present strictly preserved, so that it is of little use to the angling community at large, until "the good time coming" may bring with it more liberal ideas in this respect; but it is well worthy of a passing notice, and it is unquestionably the queen of fly-fishing streams in the north of England, and may perhaps be entitled to bear the palm over a wider district. The whole of it is an uninterrupted succession of beautiful streams and pools, literally swarming with good-sized trout; and with a brisk westerly breeze, the angler, who is fortunate enough to obtain leave, may fill his creel in a very short time. Having little acquaintance with the angler's arts, the fish are comparatively bold and unsuspicious, and rise at the fly like heroes. I have known twenty-four pounds of trout killed with fly in three or four hours on this river; surely enough to satisfy the cravings of the most greedy sportsman. Here the dun-drake in its season, as well as all the different spring duns in succession and the gravel-fly, are most killing flies in the early part of the season; and in May and June, the little yellow mayfly, yellow sally, spider-fly, little whirling dun, and the hare-ear and woodcock, will be exceedingly well taken in the former month; while the alder-fly, the green and gray drakes, the sand-fly, the red-spinner, the crane-flies in a good breeze, the hare-ear and pheasant, the small black fly, and the dun

gnat, will be equally successful in the latter. Even in bright sunny weather, when not a breath of air is astir, and when it would be next to impossible to raise a fish in most other waters, a decent dish of trout may be taken out of the Glen; thus showing the readiness with which the fly is taken in this water, when skilfully fished. During the height of summer, when the waters are low, great execution may be done by fishing up stream with a worm in the early morning; and again in the evening, by spinning a minnow in the rapids at the head of the streams. I have seen a magnificent dish of trout taken in this manner (one weighing two pounds and a half) when they were elsewhere a rare commodity. The salmon himself is occasionally killed with the rod in the Coupland Water, as also abundance of whitling; but it must be remembered that those aristocrats of the finny community are not to be had every day here.

The Glen trout are fair-sized, pretty, bright-coloured fish, but by no means equal to those of the Till, either for size or flavour.

The College.

Though the College has in dry weather only the proportions of a mountain burn, nevertheless it abounds with trout, which take either the worm or the fly very freely, if the water is in a proper state after rain. They generally run small—six or seven to the pound—yet a few good fish of half or three quarters of a pound frequently present themselves, and I have seen one of two

pounds taken out of it. At Heathpool Linns—three deep oval pools hemmed in on each side by perpendicular walls of rock thirty or forty feet high, and into which the waters rush over a low fall of five feet—there are numbers of fine trout, but they cannot be approached without wading. An eccentric sportsman, the late J. B——n of facetious memory, used to be in the habit of fishing those pools from the back of a donkey, using his *hat* as a landing-net, with holes cut in the crown to let the water escape.

It is quite in vain for the angler to direct his steps to the College, unless it is after a fall of rain, as it is too scant of water in dry weather to afford any chance of sport with the fly. But the worm is here, as in most moorland streams, at all times a deadly bait, and may even be used with success when the water is very low by introducing it adroitly among the stones with a long rod. I have often found the gray gnat a very killing fly on this water in summer.

The Cheviot Becks.

Several small burns or "becks" (as they are called in the district) that empty themselves into the College, after meandering through the glens of the Cheviots on the English side, contain astonishing quantities of trout, especially towards the autumn when they run up to spawn; and after a flood at this season, it is no uncommon occurrence for a single rod to capture sixteen or eighteen dozen with worm in a single day in these rivulets. But in dry weather they are mere rills, and of no use to the angler whatever; unless he adopts the

primitive method of fishing with his hands. Here they will also take the fly with equal avidity in pools where there is sufficient breadth of water to use it ; while those ravenous gentry are in no way fastidious regarding the orthodox shade of colour of the fly used, or the precise species proper for the season, but will gobble down almost anything having a remote resemblance to an insect, however faint may be the imitation. The red and black hackles, the former with gold, and the latter with silver twist, show well upon moss-coloured water, and will be found to do good execution ; while the fern-fly, the tawny fly, and the sooty dun, with the smoky dun hackle and the black gnat, are universal favourites in such localities.

The trout are in general small, white-fleshed, insipid, and comparatively worthless as articles of cuisine, and very similar in complexion to the sterile wastes by which they are surrounded ; nevertheless, on suitable occasions, they afford to the angler a variety in his avocations, and a day spent among the wild glens of the Cheviots must be a very agreeable one indeed to any one fond of mountain scenery, where nature alone remains as she first came forth in her simple grandeur.

In fishing these becks, the worm is in all cases preferable to the fly, as they are so narrow and confined that the latter cannot be cast with any satisfaction, while the former can be dropped into every hole and corner, and with the most deadly effect. So simple and unsuspicious are these moorish fry, that during a fresh when they are greedily on the feed, they will actually shoulder

each other out of the way, like a shoal of minnows, and contend for a fraction of worm, although half of the hook may be exposed—a fact which forcibly shows the bold and unsuspicious nature of the unsophisticated trout.

The only station from which the angler can reach the College and the mountain becks is Wooler, from whence his best plan is to walk eight miles across the moors to Southern Knowe, a lone shepherd's house standing on its banks, and as high up the water as there is any good fishing to be had. Between this and Newton Bridge, about five or six miles below, the angler will find ample space and excellent water for a long day's sport. And if he can succeed in inducing as many troutikins to enter the hole in the lid of his creel as I have done on several occasions, he will be apt to magnify into ten or a dozen the six miles of road between Kirk-Newton and Wooler, where he'll have relish enough for that eternally tough beefsteak, and its tender spouse, Bass's Pale Ale.

The Tweed.

Having now disposed of all the rivers in Northumberland worthy of notice, we hail with delight the "bonnie Tweed," indisputably the queen of British rivers in the eyes of the angler. It would be a piece of presumption in me to attempt to describe its beauties, which have been so often sung by many an inspired pen. Suffice it to say, that from its fountain among the Peeblesshire Fells to Berwick-upon-Tweed, the

Tweed's whole course forms one of the finest combinations of stream and pool, whirling eddy and shelving shallow, that the most imaginative sportsman can conceive or wish for. And if he had a river to make purposely for angling, he could not do better than take this as his pattern, and make the new one the exact counterpart of the old. The whole bed of the Tweed is mostly composed of fine pebbly gravel, while the water is beautifully clear, except in the immediate neighbourhood of these sad mar-sports, the mills, while its volume is such, that trout-fishing may be pursued in the severest droughts, when the smaller rivers are nearly parched up. The shores are everywhere shelving and free from obstruction, either on one side or another, so that the greater part of the river may be fished, by wading occasionally. But should the angler object to this, he may still find abundance of excellent trout-haunts within reach of terra firma, to occupy his attention during the longest day's sport.

The quiet beauty of the scenery through which this noble river flows, especially from the pretty little town of Kelso upwards, is perhaps unrivalled in Britain.

Who that is familiar with the works of the great illustrator of "the land of the mountain and the flood," will not regard with a peculiar interest at least that part of it which sweeps in graceful flow through the lovely and classic land of Scott; every inch of which is invested with its own particular associations, from the hallowed ruins of Dryburgh to the splendid remains of Melrose, magnificent even in their desolation, and the

melancholy piles of Abbotsford, for ever to be held sacred in the eyes of succeeding generations as a memorial of the great and illustrious spirit at whose bidding they were reared? Here the sentimental angler may reverently approach the stream immediately opposite this venerated structure, and find it still merrily dancing over its pebbly bed, as it was wont to do in past times, when the piscatorial wand of the great magician was often stretched over its laughing waters; and if he is an admirer of the beautiful in nature, and of every quality that is calculated to adorn the moral and intellectual being of man, let him pause and look around, for he will find no lack of food either for the eye or the mind.

All the flies common to northern waters will be taken in the Tweed, but I observe that most of the local anglers have each their own favourite general flies for all seasons and weathers, and use them dressed rather small in size. Wright of Sprouston, near Kelso, gets up his flies in a highly artistic style; and his method of dressing the smaller kinds upon double hooks—tied back to back in such a way that they will either remain shut together, or open out at right angles to each other, so as to render a miss next to impossible—I consider a great improvement in dressing, so far as the minuter kinds are concerned. As it is unnecessary to mention the qualities of the Tweed as a salmon-river, my remarks are strictly confined to trout.

The Tweed is equally well adapted to the operations of either the minnow-spinner or worm-fisher,

at almost any time, but more especially when a little freshet is in the river after "a spate," as the natives of those parts term a fall of rain. And I have known excellent sport obtained during moonlight with the minnow in the shallows, when the water was low;—a plan frequently adopted by the professionals in the neighbourhood, a rather numerous class on all good rivers.

Good stations on the Tweed for the sportsman are Sprouston, Bergem, Kelso, Rutherford, Melrose, Innerleithen, Peebles, and Broughton; but in fact the angler can scarcely go to a wrong place between her source and tide-mark, as the whole river is an endless succession of first-class casts.

The Whitadder.

Perhaps the most important of the angling rivers that contribute to the Tweed is the Whitadder—the beautiful sparkling Whitadder—which every true angler will love for its beautiful scenery, fine trout, crystal waters, and the richness of its garden-like valley. This river takes its rise far up in the Lammermuirs in Berwickshire, which county it traverses in a south-easterly direction until it falls into the Tweed at Canty's Bridge, four miles above Berwick. A few miles below its source the Whitadder is joined by the Watch and the Dye, two small streams which unite a short distance below the remote village of Longformacbus, and then fall into it. At the clean and pretty village of Allinton, eight miles north of the Tweed, and the same distance

above the town of Berwick, the Whitadder is joined by the Blackadder—a considerable stream, which rises in the south-west of Berwickshire, and passes in an easterly direction through the district, a little to the south of the town of Dunse, until it meets the Whitadder. The highest station for the angler upon this river is the solitary inn of Elmford, about three miles east of Longformachus, and nine north-west of Dunse, above which the river becomes too small for good fishing. The existence of this lone hostelry is almost entirely due to the patronage of the angling fraternity, who frequent it during the summer months to enjoy plenitude of sport combined with the sweets of retirement; and here certainly both are to be had in perfection, as the sportsman may wander for day after day by the margin of the crystal waters in pursuit of his favourite avocation, without ever once meeting with a human being, unless it is a straggling member of his own fraternity similarly occupied, or a solitary shepherd peeping over the brow of a distant hill.

From Elmford to Abbey St. Bathan's, a village pleasantly situated on its banks, in which are the remains of an ancient monastery, the Whitadder passes through a hilly and purely pastoral district, with only small patches of cultivation here and there: but below the latter place it leaves the Lammermuirs behind, and pursues its course through one of the richest and most highly-cultivated valleys in Great Britain, until its debouchure into the Tweed at Canty's Bridge;—while the entire river is broken up into a perpetual succession of

sparkling streams, running for the most part over a bed of variegated pebbles, but occasionally over trap rocks ; and its waters are abundantly tenanted by fine medium-sized trout, bright and beautiful in colour, and of excellent flavour ; while the salmon, eriox, and whitling, in its season, are constantly to be met with. The size of this river is such as to be almost entirely commanded by a single-handed fly-rod and a long line, hence the sportsman can reach every haunt of the fish, while there is generally enough of water to enable him to pursue his avocation at any time ; and the shores, flat, pebbly, shelving, and free from wood and other encumbrances, entitle it to be classed as an "A. 1" fly-fishing stream ; and here the minnow-spinner may also pursue his calling with equal success, as most of the streams run into eddying pools, peculiarly adapted for that kind of fishing.

Besides the above general description of the river, there are one or two parts worthy of special notice. Immediately below the Retreat—an angling seat of the Earl of Wemyss built in a somewhat unique style—the river tumbles wildly over a tumultuous assemblage of trap rocks for about half a mile. As the waters seethe, and boil, and impetuously dash through this chaotic mass of rocks, numerous eddying basins are formed, which temptingly present themselves to the minnow-spinner, if he has only courage enough to brave the risk of getting peeled shins, if not a broken leg.

A few miles below this, we arrive at a part of the river called the "Strait Loup," where the whole of the waters are hemmed in between perpendicular walls

of trap, which here exists in huge masses, and through which they furiously force their way over a low fall in a narrow chasm not more than ten feet wide, into a deep, black-looking, oval basin, formed out of the solid rock, and surrounded on all sides, except the under one through which the waters issue, by a high perpendicular wall of stone. I once saw an otter-hound carried headlong, or rather sucked in, by the raging current into this fearful abyss; but contrary to the expectation of every one present, he gallantly rose uninjured to the surface, after shooting like an arrow through the narrow gorge and disappearing for a considerable time in the whirlpool below, and finally buffeted his way to *terra firma*, through the opening at the bottom of the basin. A ferry-boat is here kept by a woman residing in a neighbouring cottage, who is in the habit of rowing the curious some distance into the basin below the fall, from whence the best view of the whole is obtained.

From this part of the river to its mouth, its course is mostly over a gravelly bed, interspersed with occasional rocky stretches, while it still maintains its character as an angling stream unimpaired; the whole being an uninterrupted succession of stream and pool, with the occurrence of five or six mill-dams, forming sheets of deep still water, in which large trout abound. Only in the lower and deeper parts of the river the fish in general run of a larger size than they do higher up, as is generally the case with most rivers. The Whitadder, taken as a whole, can scarcely be surpassed as an angling river; and there are few who have once visited it, and enjoyed themselves upon its banks, who will not

wish again to renew the acquaintance. The only serious drawback upon it is a large paper-mill established on the banks at the village of Chirnside, the poisonous refuse from which considerably damages the fishing for some distance below.

The best stations for the angler are—Elmford, before mentioned, for the high part of the river; Abbey St. Bathan's, a few miles lower down, will command the middle portion as low as the copper-mine and Strait Loup; Dunse, about a couple of miles from the river at Preston Bridge, will enable him to reach between the copper-mine and near to Chirnside, when he may take up his quarters next at the latter place; and, finally, fish the lower part of the river, either from Allinton or Hutton, about a couple of miles lower down, and nearly in the centre of the lower casts.

The Blackadder, which joins the Whitadder at the village of Allinton, as before mentioned, is scarcely worth describing, as nearly the whole of it is strictly preserved, and it contains but few trout, on account of the mineral waters from some iron-mines upon it.

I omitted to say that the Whitadder affords some excellent salmon-casts, as well as trout, especially in the spring, before the waters become too low; and again, capital grilse and whitling fishing in August and September, when those fish begin to ascend the rivers.

Of the other Scottish rivers near the borders, I may mention the Kail, the Jed, the Rule, and the Teviot, in Roxburghshire, as being first-class angling streams; but as they are described in other works, and as my space is limited, I must decline farther notice of them.

CHAPTER XVI.

HOW TO COOK SALMON AND TROUT.

How to kill and crimp a Salmon—How to boil it—Effect of Salt on Boiling Water, and on the Curd of Fish—Potting Apparatus for Trout—Potting of Trout—How to kipper Trout.

AN old proverb says, "God sends the meat, but the devil sends the cooks;" I therefore trust that it will not be considered out of place if I say a few words upon a very important subject to all who are fond of good living—viz., the proper method of converting a fish into a palatable dish for the table. And as the foregoing instructions, it is hoped, will render Mrs. Glass's wise recipe "First *catch* your hare" unnecessary. I shall now say a few words upon the proper method of cooking a salmon in true Tweed style; remarking, that while your real fish epicure will permit no other accompaniment to his fresh salmon than a little of the salt water in which it was boiled, lobster or crab sauce, or parsely, butter, and a little anchovy sauce, are decided improvements to the eriox, as it is by no means so rich and highly flavoured a fish as the former.

The first part of the process, then, ought to commence with the fisher at the water-side, if it is desired to serve up a fish in the first style of art, and in the highest degree of perfection. Immediately on a salmon

being landed, he ought to be killed by a stunning blow on the head, in which case the muscular tissue will become rigid and firm, from the violent shock to the nervous system, in place of being soft and flaccid, as it will always be when suffered to die a lingering death from strangulation. And the muscles will retain permanently this rigid state if not too much handled afterwards.

The next preliminary process at the river-side, is to crimp him. This is done directly after he is deprived of sensation by the blow on the head, by cutting the fish transversely across from back to belly, making the incisions at intervals of three inches or so, and deep enough to penetrate to the backbone and completely divide the muscles. As soon as this operation is completed, the fish ought to be laid for about ten minutes beneath a spout of cold spring water to stiffen; then be covered over with cool fresh grass or ferns, in a cool shady place, till required for the table. Such a process materially contributes to give the flesh that peculiar firmness and crispness so characteristic of a first-rate fish, and a property so highly prized by the epicure.

On handing him over to the cook, that functionary must cut open the belly and eviscerate him, wiping him clean with a dry cloth, but on no account using water at this stage of the proceedings, as after the vital influence has entirely fled, the water would dissolve a portion of the albuminous curd, which exists between the flakes of flesh, and which somewhat resembles in properties the white of eggs. It is the abundance and

crispness of this curdy matter that renders a salmon, newly caught and in full condition, so vastly superior to one that has been long kept, or taken out of season. The curd quickly decomposes in hot weather, and is converted into a sort of limpid oil, which imparts to the flesh its peculiar oily quality, when long kept, or carried to a distance. And I have, on several occasions, been not a little amused at gentlemen, reared far from the home of the salmon, and who never tasted it except when in this half-decomposed and oily condition, complaining of the dryness and want of condition of a fish in the very height of perfection almost jumping alive in the kettle.

As it is then a most essential matter to preserve the curd in all its integrity, either from decomposition or loss in the cooking, particular attention must be paid to its treatment in the pot.

It is a fact well known to chemists that water in which any saline matter is dissolved requires to attain a much higher degree of heat before it reaches the boiling-point than pure water does. Thus, a saturated solution of common salt does not boil until it attains 228° F., while simple water boils at 212°, at the level of the sea. Fat or oil floating upon the surface of a kettle of water, by preventing the free evaporation of steam, has a similar effect. Almost every cook with even a humble knowledge of her business, knows that cabbage, spinach, and other green vegetables, can only be rendered tender by boiling them in water in which there is either a portion of salt, carbonate of soda, or fat meat; though

few, perhaps, are able to tell you the reason why. Now albumen is soluble in cold water, and not altogether insoluble in water at 212° F., but completely so in water at 220° F., when it is instantly coagulated into a crisp, rather brittle solid. It therefore will be apparent that if the fish was at once either immersed in a kettle of cold water, or even in simple water, boiling at 212°, a great portion of the valuable albuminous curd would be dissolved out and lost. To prevent this, it is necessary to add two or three handfuls of salt to the water in which the salmon has to be cooked, and then allow it fully to attain its boiling-point of 220° or more, according to the quantity of salt added, before the fish is put in, when the whole of the curd will be instantly coagulated, and preserved intact.

Supposing then that the kettle of saline water is briskly on the boil, the cook must divide the backbone of the fish entirely through at each crimping incision with a strong knife, and throw it into the kettle, one piece after another, beginning at the thickest pieces, which will require the most cooking first, and remembering to allow the water to come completely upon the boil again, before the next piece is added; when the whole must be permitted to boil briskly for ten minutes, or a quarter of an hour, according to the size of the fish. The separate pieces must then be arranged in their natural position, upon a dry napkin spread over a dish with a fish-slice, and served up to table with some of the water in which it was boiled in a sauce-

boat, and it will not be the fault of the *professeur de cuisine*, if it is not of first-rate excellence.

A salmon thus killed, crimped, and cooked, within a mile or two of his native stream, and within an hour or two of his roaming its crystal deeps, is a very different fish indeed to those oily, half-decomposed, flabby remains that find their way into our inland towns; which in addition to the shaking received in the transit, have yet to undergo the farther ceremony of lying in state at the fishmonger's window.

Preserving Trout.

I have frequently been quite at a loss how to dispose of quantities of fine surplus trout taken at a successful fishing, but it is said that "experience makes fools wise," and I ultimately hit upon a plan of preserving the whole, so that I could send them any distance, or use them myself at home. No doubt some philanthropic individuals may say, that it would be a more Christian act to present them as gifts to our poor neighbours, yet it requires a more than ordinary development of the organ of benevolence to induce a sportsman to part with what may be received with perhaps doubtful thanks, and which has been laboriously and gloriously won. I say by all means eat them yourself, good fellow, or, if you are a country gentleman, dispense them among those famous tenants who don't bother you for repairs.

To enable the angler then to do this, I have con-

trived the following potting apparatus ; which, if travelling by rail or otherwise, he may either take with him, or send to the scene of his intended operations.

I am sure it will be found a most efficient means of enabling him to preserve the results of his labours, especially if he has a conveyance of his own, in which it can easily be carried. The whole apparatus, then, consists of a light wooden or tin box with a lid, 20 inches long, 9 inches broad, and 9 inches high, in which are packed half a dozen square stoneware or tin pans, 8 inches by 6, and 4 deep. These are placed lengthways across the box in two rows of three each one above the other, with a movable bottom of deal, between for the upper row of pans to rest upon. In these pans the trout are to be potted according to the following directions, when they will keep for weeks, or even months, and may be transported wherever the angler chooses. Salmon, I need scarcely say, may be disposed of in a similar manner, whenever the sportsman is fortunate enough to get hold of them.

Potting Trout.

First, allow the trout to lie ten minutes in cold spring-water, or let it run upon them from a tap, to clean and stiffen them ; then take out the entrails, and clean them well with a coarse towel ; but by no means wash them in water after they are opened. Next, remove the heads, tails, fins, and backbones, with a sharp knife ; dissecting out the backbone with as little flesh on it as

possible. This done, apply the following mixture to each slice of fish, and transfer them, as they are dusted over with it, into a baking dish. For every stone weight of fish, mix three tea-spoonfuls of ground black pepper and allspice, two of ground mace, one of ground cloves and nutmeg, and half a tea-spoonful of cayenne. This mixture must be kept ready for use, in a well corked bottle, and when wanted, add a little salt to ten and a half tea-spoonfuls of it, and dust the fish well over with this. The above quantity will be proper for every fourteen pounds of trout. After they are all disposed in the dish, cover them over with fresh sweet butter, and place them in a slow oven, where they must remain until the bones are dissolved. When sufficiently baked, drain off the butter, and remove the fish into potting-dishes, press them well down to exclude the air, and when perfectly cold, cover them over with melted tallow, poured on just as it is about to congeal. Trout done in this manner are most delicious, will keep good for a considerable time, and if in high condition and pink in the flesh, are little inferior to the celebrated potted char.

If the waste incurred in cutting out the backbones of the fish is objected to, they will do equally well if baked whole, with only the heads, tails, and fins removed. Salmon may also be potted in the same manner, after being cut into suitable pieces. And I have also tried pike treated after this fashion, and found it very fair—much better than many would suppose.

Large trout split open and kippered like salmon, form also an excellent adjunct to the breakfast-table,

when broiled with fresh butter before the fire. The method of proceeding is this :—split the trout open down the middle of the back, close by one side of the backbone, with a sharp knife, leaving the belly entire ; remove the entrails, and wipe it clean with a dry cloth ; then lay the fish out flat, skin side downwards, on a large dish or stone slab in a cool place, and sprinkle the flesh over with a little salt, to which a pinch or two of the potting mixture has been added. After the fish has lain twenty-four hours, drain off the moisture, rub it dry with a clean cloth, and across it fix a couple of pieces of wood, sticking their points into the skin at the edges so as to keep it extended, precisely as is done with a kippered salmon, and hang it out to dry for a few days in the open air ; when it will keep as long as is desired.

THE END.

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